Final Report

FHWA/IN/JTRP-2006/27

FREIGHT FLOWS OF INDIANA

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16. Abstract

Using data primarily from the 1997 Commodity Flow Survey (CFS) this report develops a series of models for estimating the production and attraction of 41 different SCTG commodity groups for 145 geographic units in the United States; 92 of these are the counties of Indiana. This is followed by the calibration of fully-constrained gravity models for the flow of these commodities. Using modal share data from the CFS the generated traffic is divided between the various modes. This project looked primarily at the highway sector and used digital representations of these networks for traffic assignment purposes. A very detailed Indiana digital road network was merged with a USDOT digital highway planning network. New cost metrics were developed for each modal assignment . Productions and attractions were forecasted and the models and assignments were rerun for 2015 and 2025. A chapter on implementation suggests how the results of the project can be used for planning and policy development. Appendices include productions and attractions for the 145 areas, computer program code for the major software developed, national modal share data by commodity, and distance decay curves for the different commodities

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Preface

Why examine freight flows? It is a reasonable question to ask. Freight is not something that immediately comes to mind when most people think of transportation. It is not like congestion, or potholes, or any of those topics that people discuss around the water fountain soon after arriving at work. It is far more important than most of these topics and to paraphrase a scholar from several decades ago, people don't talk about freight transport because in most cases it works.

You may take any size area you wish from the smallest town to the largest country. These will be economically viable if the value of the products or services they sell in the aggregate to the areas beyond their borders exceed the value of the products they buy from these same areas. It is the exporting of goods that brings new income to the state. Selling goods only to ourselves circulates wealth, and perhaps some regions or counties may benefit from this, but it brings little new wealth to the state in the aggregate.

For the most part we will not concern ourselves with services since this report concerns itself primarily with freight. But one should not dismiss these flows since they often do involve selling something of value to those outside of Indiana. Perhaps one of the best examples of this is the university education sold to a student (or his or her parents) from outside Indiana or in some cases outside the United States. The tuition, lodging, and fees paid by these students represent contributions to the economic base of Indiana and the country. Consulting firms, accounting firms, law firms, and many others often sell their services beyond the borders of the state and are very important economically to the state. Nevertheless, we will focus our concern here on the movement of goods or freight transport.

We will examine freight flows in order to determine what is moving within the state of Indiana and where it is moving. In some cases we want to know this to make sure that the routes being used for these movements are well-maintained. In other cases we want to make sure that many of these same routes are kept in working order so that our manufacturers can get the raw materials that they need to carry out their production processes, which are so important to the state economy.

The routes of primary concern here are made up of rail lines or highway segments, and these receive the lion's share of our attention. We are aware of the use of water modes and the existence of air freight flows, but the former become important when the freight arrives at Indiana ports on the northern (Lake Michigan) and southern (Ohio River) borders, and the latter

become important when the air freight destined for Indiana arrives at an airport within or near the state. This view of these modes is not a statement that we view them as unimportant, but rather the recognition that the water routes are maintained by others and the movement of aircraft, freight or otherwise, is not influenced by the state. From the lake and river ports or airports these flows become highway freight movements in most cases and at least the latter are treated as such here. The same is also true in the reverse case when goods are leaving Indiana. Air freight shipments are treated as highway moves until they reach the point when they are moved by an alternate mode.

The freight that we will examine here includes all of the freight that has an origin and a destination within the United States. Exports are generally treated as goods shipped to the point of export; we do not know their final destination outside the country. Imports are also treated as goods arriving at the point where they enter the country in most cases. Once again for these flows we do not know the foreign point of origin. The foreign origins and destinations of goods are discussed here, but they are not a subject of analysis or modeling.

The approach that is taken here in analyzing freight flows of Indiana is a typical 4-step transport planning process: traffic generation, traffic distribution, modal split and route assignment. We begin with a discussion of the areas used (Chapter 1) followed by a discussion of the rail and highway networks (Chapter 2). The commodities examined and their importance nationally and to the state of Indiana as well as the source of these data appear next (Chapter 3).

It is not always apparent why we develop models that enable us to predict data that we already know. The reason for this is that we want to use the models to predict future flows. The primary assumption made is that future flows will be predictable based on the same relationships observed in the first analysis. For example, let us say that each employee in an industry is found to produce 2,000 tons of a commodity that is shipped according to current data. At some point in the future we want to know how many tons of a commodity will be produced in an area that has 100 employees in that industry. The answer would be 200,000 tons. We would use this as our prediction of future flow from that area for that particular industry. However, for many industries we find there are changes in the level of productivity anticipated. If we assume that workers in 2015 will become more productive by a factor of 2 per cent, then each worker will produce 2040 tons of the commodity, and the resulting level of future flow from our area would be 204,000 tons. We will use productivity changes and expected growth factors to estimate flows produced. The methods used for flows produced as well the manner in which flows attracted are handled will be discussed in Chapter 4.

Distributing the flows between origins and destinations will be discussed in Chapter 5. A fully-constrained gravity model and a production-constrained gravity model were evaluated as part of the project. The former model was used in the earlier 1997 study and it was thought that a more realistic replication of flows could be achieved with the production-attraction constrained model. This will be discussed in more detail in Chapter 5.

Modal split analysis attempts to estimate the amount of the estimated flows that will be shipped by different modes moving between an origin and destination. In general it is believed that this is a function of the costs of the different modes, but the type of detailed cost data we would need for this approach is generally not available. Therefore, we will use historical patterns in part. Such an approach would look at the length of the shipment and look at the modes that have been used historically for assigning such traffic. This was the approach used in the previous (1997) study.

Once the modes are known we can proceed with assigning the current and future flows to the modal networks. The principal modal networks of concern here are those of the highway and railroad and the methods used for assignment are discussed in Chapter 7.

Forecasts of future flows are discussed in Chapter 8. For the most part these forecasts are based on procedures derived elsewhere by and for the State.

Chapter 9 discusses implementation of the projections and forecasts derived here. Aside from its value to the state in identifying priority corridors, we know of numerous metropolitan planning organizations that have an interest in the findings derived and the modeling used here. It is for this reason that much of the production and attraction data are included in appendices of this report. This chapter provides a guide as to how different agencies can use these and other data found here.

Chapter 1

INTRODUCTION, STUDY AREA, AND NETWORKS

The primary objective of this project is the forecasting of freight flows for the state of Indiana for 2015 and 2030. The manner in which this is done is to follow a classical transportation planning process. This involves an inventory of facilities, an analysis of what is being moved, the development of models to replicate freight traffic generation, the modeling of flows between places, the separation of traffic between the various modes, and the assignment of that traffic to existing highway and rail networks. In this chapter we will examine the study area and networks used in the study.

The primary study area for this examination of freight flows is the state of Indiana and its ninety-two counties. While the flows to, from, and between each county are of interest, the analysis would be incomplete if it focused solely on intrastate flows. A significant amount of commodity traffic in Indiana has neither origin nor destination within the state's boundaries; instead it represents goods passing through the state. As the state slogan proclaims, Indiana is the "Crossroads of America." The consequence of this overhead traffic on the state's economy is questionable; however its impact on urban traffic congestion, air pollution, highway wear and tear, and rail traffic is decidedly significant. Therefore, the study area goes beyond the state's borders.

A transportation network consists of nodes and route segments. There are 145 nodes of origin and destination. As well as the 92 counties of Indiana, there are 53 major terminals for the other 47 contiguous states (excluding Indiana) and the District of Columbia. All states are represented by one node, with the exceptions of Illinois, Kentucky, and Michigan, which are represented by two nodes, and Ohio, which is represented by three. There were also five nodes added later in the study to represent the five major airports serving the state. For reference a map of Indiana and its counties appears as Figure 1-1.

There are four major route transport networks serving Indiana: the highway system, the railway system, the air transport system, and the waterway network. This study is primarily concerned with the highway and the rail route segments. Flows on the other networks are considered implicitly if motor carriers or rail are used in part of the movement.

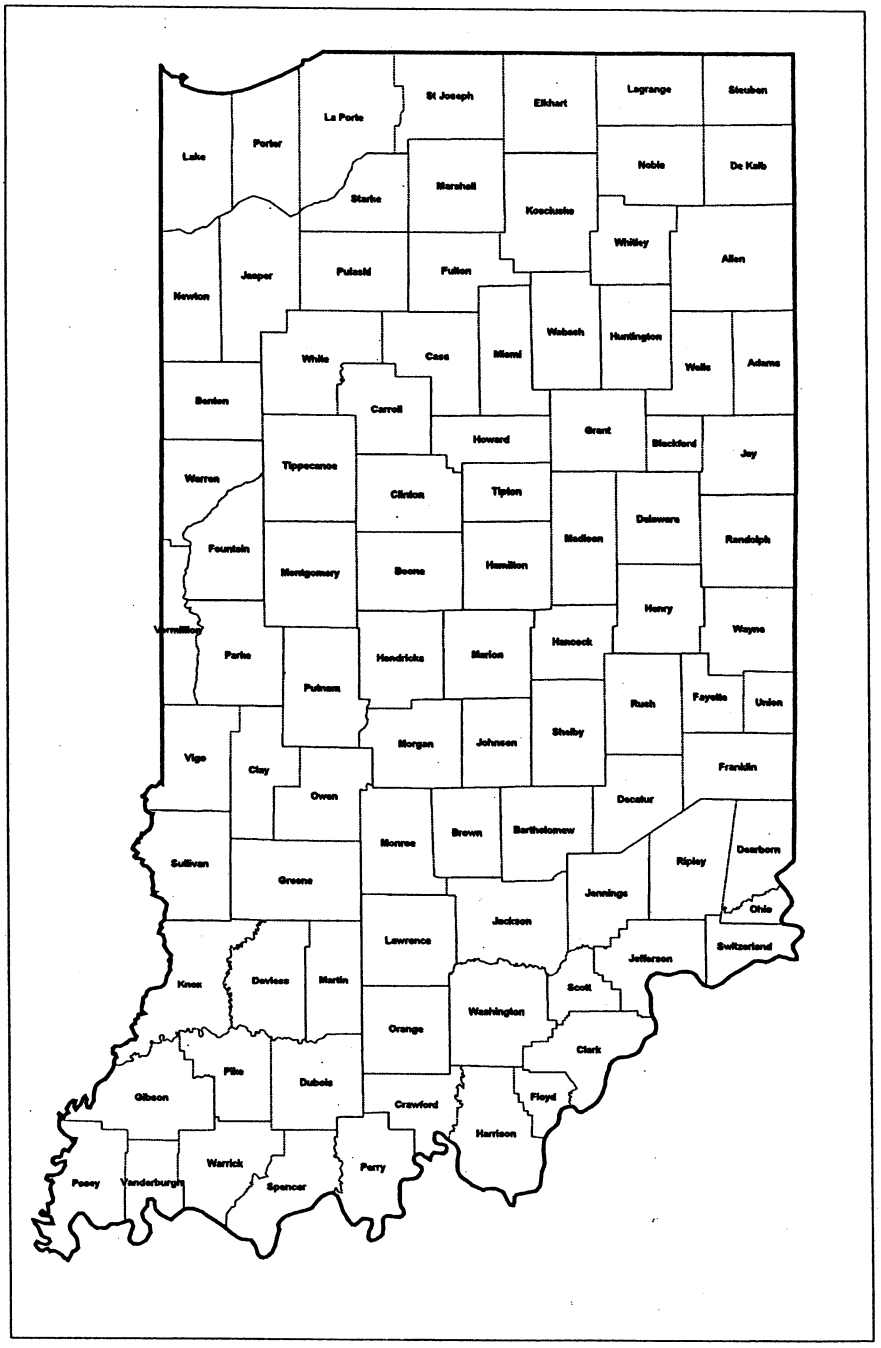

Figure 1-1. The Counties of Indiana

The Highway Network

The highway network used in this study is an integrated network consisting of the highway network of Indiana as used by the Indiana travel demand model and the U.S. Interstate Highway network beyond the area covered by the former network. The network is not merely a visual image, but is a connected network to allow for traffic assignment of flows from and to all parts of the nation from locations within Indiana.

In terms of size the network consists of 73,346 segments covering 86,596 miles of highways and roads (see Figure 1-2). The average length of a segment of highway is 1.18 miles. The network is much denser in Indiana than it is through the remainder of the country since the primary concern here are the highway flows within the state (see Figure 1-3). The interconnections between the two networks are shown in Figure 1-4. It will be noted that the network is also dense just beyond the boundary of the state. This is to allow for flows to find their natural path into and out of the state. Confining the dense network only to the area within the boundary of Indiana would result in illogical paths being used by traffic assignment algorithms later in the study.

For purposes of analysis the state's counties are represented by 92 nodes, one for each county. Outside of Indiana each state is also represented by a node, except that contiguous states are represented by two nodes (in the case of Michigan, Kentucky, and Illinois), or three nodes (in the case of Ohio). The District of Columbia is also included and this yields a total of 145 nodes (see Table 1-1).

The Railway Network

The railway network for this study will be similar to the network used for the 1997 flow study. There have been minimal changes in rail line additions and closures and these changes have been incorporated in the network used here based on information supplied by the Indiana Department of Transportation's Rail Division.

The network used consists of 12, 815 line segments covering 148,996 route miles, not track miles. Track miles also include the length of industrial sidings and classification yards. The network used appears as Figure 1-5, with the Indiana portion shown in more detail as Figure 1-6.

As is true for the highway network, the rail network is also represented with network nodes, referred to here as stations. The Indiana nodes appear in Figure 1-7 and all nodes are identified in Table 1-2.

Other Networks

The approach taken here to the water transport and air transport networks remains the same as that used in the 1997 study: they were deemed superfluous and left out of the analysis as

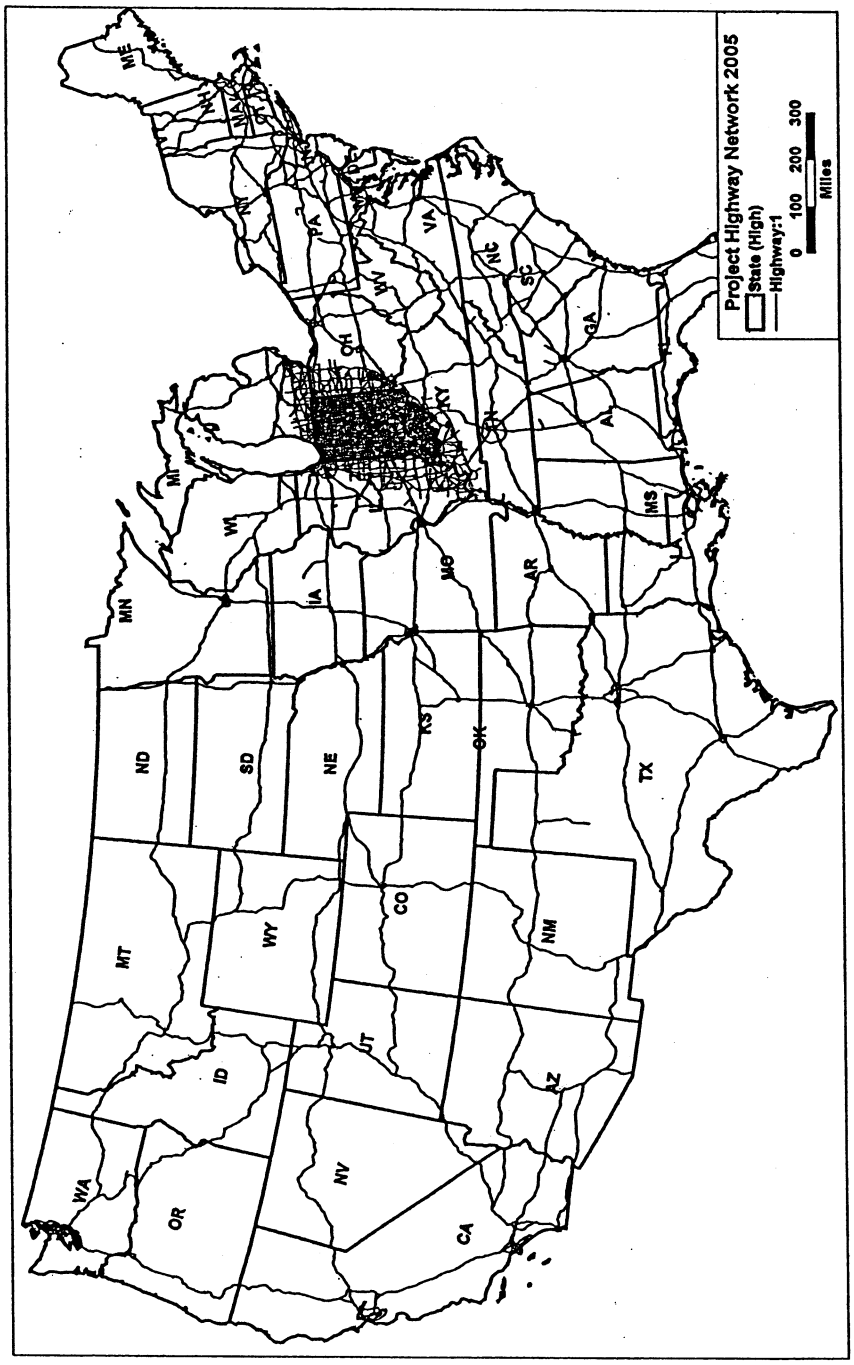

Figure 1-2. Highway Network Utilized

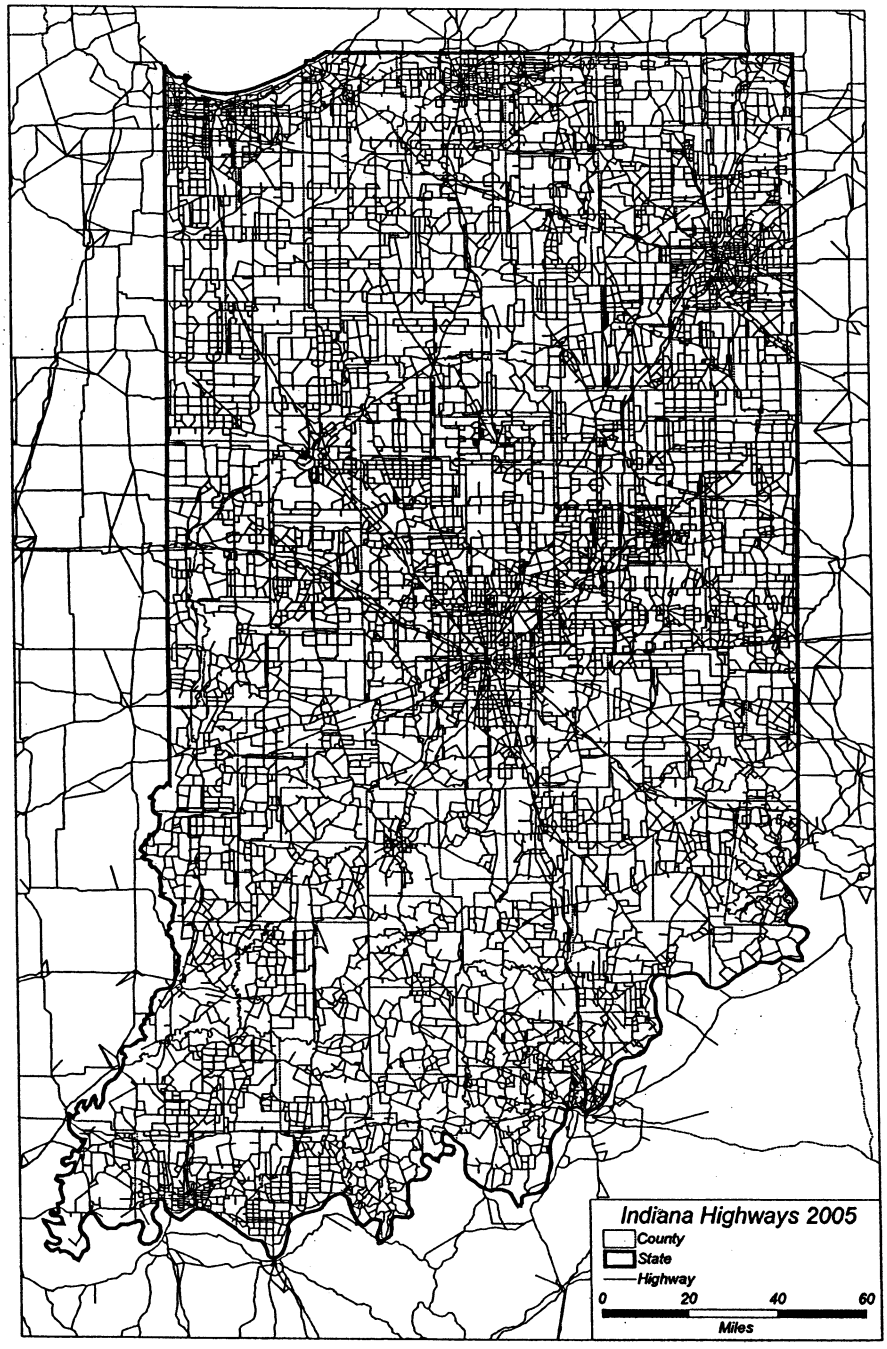

Figure 1-3. Indiana Portion of the Highway Network

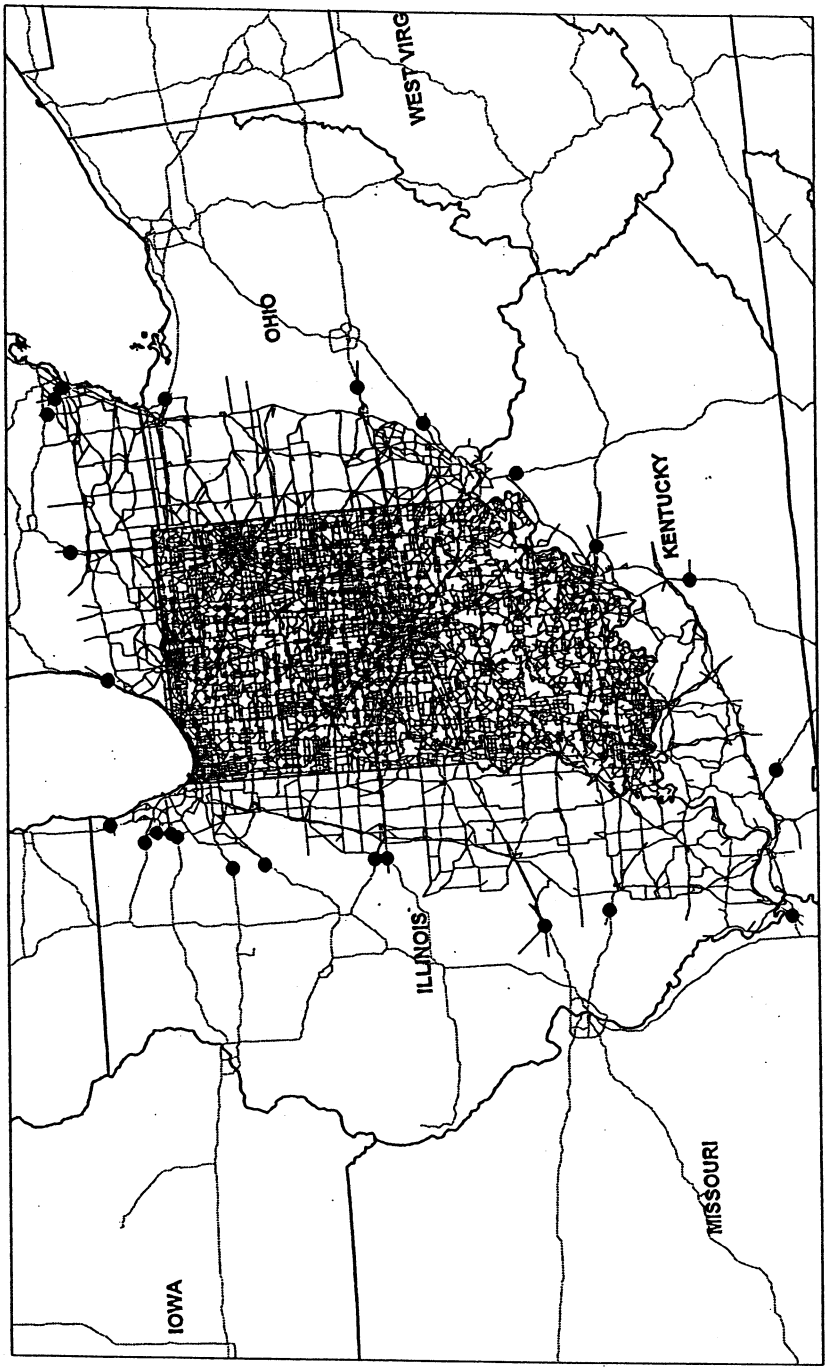

Figure 1-4. Interconnections of the State and Interstate Systems

Table 1-1. Nodes of the Highway Network and Coordinates

	ID	Longitude	Latitude	State	County
1	230218	-86820037	33443494	Alabama	
2	231636	-111966957	33388622	Arizona	
3	243103	-92307369	34799568	Arkansas	
4	232956	-120104507	36079524	California	
5	237253	-105002769	39762338	Colorado	
6	257459	-72814362	41549751	Connecticut	
7	254517	-75740625	39647189	Delaware	
8	254013	-77170502	38894955	District of	
9	241443	-81654805	28228774	Florida	
10	248164	-84332879	33833346	Georgia	
11	236567	-112406986	42833123	Idaho	
12	200286	-87920168	41933007	Illinois-n	
13	246094	-89644442	39732689	Illinois-s	
14	224368	-84947973	40744878	Indiana	Adams
15	226025	-85142641	41079783	Indiana	Allen
16	219760	-85877816	39210716	Indiana	Bartholomew
17	212421	-87318552	40613678	Indiana	Benton
18	222304	-85313342	40471636	Indiana	Blackford
19	215222	-86467969	40046700	Indiana	Boone
20	209588	-86251592	39221586	Indiana	Brown
21	214043	-86544369	40608494	Indiana	Carroll
22	215531	-86373778	40767474	Indiana	Cass
23	10025	-85723950	38440461	Indiana	Clark
24	11012	-87096569	39410856	Indiana	Clay
25	213693	-86487276	40290288	Indiana	Clinton
26	208686	-86471936	38299722	Indiana	Crawford
27	226746	-87061024	38727220	Indiana	Daviess
28	218354	-84945292	39142283	Indiana	Dearborn
29	228865	-85458207	39342636	Indiana	Decatur
30	229559	-85023674	41381355	Indiana	Dekalb
31	223824	-85391868	40200351	Indiana	Delaware
32	227360	-86892542	38355588	Indiana	Dubois
33	225493	-85834268	41584907	Indiana	Elkhart
34	220269	-85136700	39640325	Indiana	Fayette
35	202300	-85890756	38303455	Indiana	Floyd
36	212199	-87243085	40113480	Indiana	Fountain
37	228990	-85049733	39435160	Indiana	Franklin
38	211455	-86240069	41068697	Indiana	Fulton
39	207494	-87574085	38341066	Indiana	Gibson
40	223104	-85662870	40522666	Indiana	Grant
41	205992	-86986146	39029143	Indiana	Greene
42	202425	-86037180	40054579	Indiana	Hamilton
43	219460	-85769890	39814609	Indiana	Hancock
44	31006	-86105365	38182729	Indiana	Harrison
45	209955	-86542622	39760453	Indiana	Hendricks
46	223405	-85381826	39929155	Indiana	Henry
47	215623	-86102831	40476802	Indiana	Howard
48	220796	-85507496	40894927	Indiana	Huntington
49	205480	-86033541	38896113	Indiana	Jackson
50	37019	-87101896	41059717	Indiana	Jasper
51	221075	-84965623	40432540	Indiana	Jay

	ID	Longitude	Latitude	State	County
52	39019	-85366337	38808533	Indiana	Jefferson
53	219865	-85617348	39005641	Indiana	Jennings
54	205059	-86059000	39471207	Indiana	Johnson
55	207138	-87364406	38700598	Indiana	Knox
56	225255	-85852539	41246104	Indiana	Kosciusko
57	226186	-85416623	41633346	Indiana	Lagrange
58	213198	-87364804	41485895	Indiana	Lake
59	216782	-86714144	41608253	Indiana	LaPorte
60	227804	-86494835	38846907	Indiana	Lawrence
61	222379	-85696775	40135183	Indiana	Madison
62	210529	-86171203	39764490	Indiana	Marion
63	216308	-86276287	41343320	Indiana	Marshall
64	208835	-86808774	38706101	Indiana	Martin
65	215676	-86037418	40753536	Indiana	Miami
66	209318	-86533606	39166608	Indiana	Monroe
67	203873	-86901407	40047364	Indiana	Montgomery
68	209685	-86444002	39490714	Indiana	Morgan
69	212654	-87392576	40940527	Indiana	Newton
70	57015	-85379061	41421966	Indiana	Noble
71	217716	-84958239	38952353	Indiana	Ohio
72	208722	-86466330	38536551	Indiana	Orange
73	227771	-86833473	39304481	Indiana	Owen
74	203122	-87236075	39768930	Indiana	Parke
75	205910	-86610269	38109730	Indiana	Perry
76	207896	-87220492	38395125	Indiana	Pike
77	229840	-87082796	41461388	Indiana	Porter
78	207464	-87832984	38063140	Indiana	Posey
79	216102	-86699613	41055440	Indiana	Pulaski
80	209927	-86865922	39653139	Indiana	Putnam
81	222181	-84974353	40172563	Indiana	Randolph
82	219315	-85279495	39104668	Indiana	Ripley
83	220340	-85446370	39608326	Indiana	Rush
84	217078	-86251572	41669097	Indiana	Saint Joseph
85	72004	-85747395	38667739	Indiana	Scott
86	219955	-85783475	39540059	Indiana	Shelby
87	206448	-87016255	38002497	Indiana	Spenser
88	215938	-86639971	41317257	Indiana	Starke
89	220829	-85015205	41635117	Indiana	Steuben
90	208148	-87418958	39082115	Indiana	Sullivan
91	217743	-85065498	38815197	Indiana	Switzerland
92	214830	-86899538	40444761	Indiana	Tippecanoe
93	202535	-86079381	40303494	Indiana	Tipton
94	203499	-84942383	39611086	Indiana	Union
95	226866	-87581795	38022070	Indiana	Vanderburgh
96	211948	-87446011	39893355	Indiana	Vermillion
97	207987	-87413575	39450070	Indiana	Vigo
98	221038	-85818840	40797090	Indiana	Wabash
99	212033	-87347490	40351615	Indiana	Warren
100	207758	-87273908	38060337	Indiana	Warrick
101	209312	-86094090	38609618	Indiana	Washington
102	227273	-84995466	39876434	Indiana	Wayne

	ID	Longitude	Latitude	State	County
103	224062	-85179024	40733401	Indiana	Wells
104	91021	-86844227	40776750	Indiana	White
105	225362	-85485436	41156939	Indiana	Whitley
106	245132	-93625795	41649499	Iowa	
107	244005	-97618105	38737601	Kansas	
108	248286	-84461509	38083662	Kentucky-e	
109	100828	-88366722	36833610	Kentucky-w	
110	238151	-92435321	31074228	Louisianna	
111	258516	-69476868	44684250	Maine	
112	254478	-76641972	39451506	Maryland	
113	257590	-71474012	42299699	Massachusett	
114	249843	-83619247	42885796	Michigan-e	
115	249123	-85707501	42960929	Michigan-w	
116	245934	-93285426	45067452	Minnesota	
117	240372	-90151194	32359372	Mississippi	
118	243046	-92737076	38936512	Missouri	
119	236582	-112628318	46008908	Montana	
120	230184	-99416267	40692745	Nebraska	
121	231953	-116904617	40619709	Nevada	
122	258333	-71533895	43211126	NewHampshire	
123	256124	-74428631	40161577	NewJersey	
124	237070	-106728378	35094742	NewMexico	
125	249550	-75128105	43086742	NewYork	
126	253109	-78983956	35915326	NorthCarolin	
127	230541	-100294382	46836312	NorthDakota	
128	252487	-81757324	41312634	Ohio-n	
129	251974	-82944556	39951533	Ohio-m	
130	218162	-84441939	39289760	Ohio-s	
131	243665	-97527200	35464360	Oklahoma	
132	234350	-123004569	43990692	Oregon	
133	254597	-77530757	41029711	Pennsylvania	
134	257526	-71603735	41650606	RhodeIsland	
135	251082	-81046326	34062847	SouthCarolin	
136	245402	-100051782	43898533	SouthDakota	
137	247850	-86827942	36155684	Tennessee	
138	238642	-97250637	31297776	Texas	
139	235264	-111841802	39679488	Utah	
140	257878	-72610994	44110530	Vermont	
141	253295	-77427674	37552263	Virginia	
142	234657	-122025454	47532033	Washington	
143	252067	-81588158	38391693	West Virgini	
144	248646	-89527193	43517451	Wisconsin	
145	237765	-106282325	42855627	Wyoming	
146	200440	-87763098	41811527	Chicago-O'Ha	
147	218652	-85729640	38190492	Louisville A	
148	217953	-84647423	39001326	Cincinnati A	
149	225647	-85207397	41074554	Fort Wayne A	
150	210243	-86269683	39729598	Indianapolis	

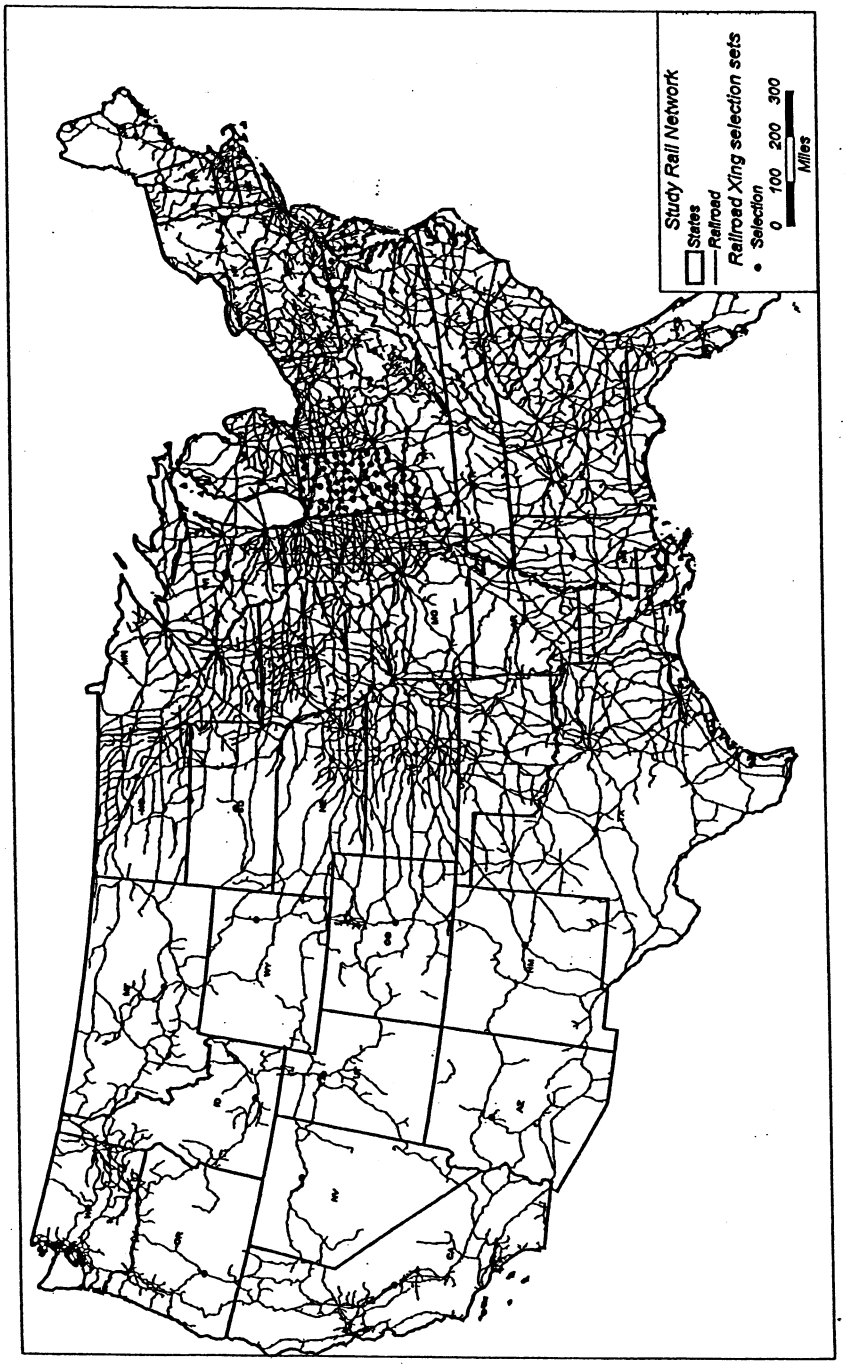

Figure 1.5 Study Rail Network

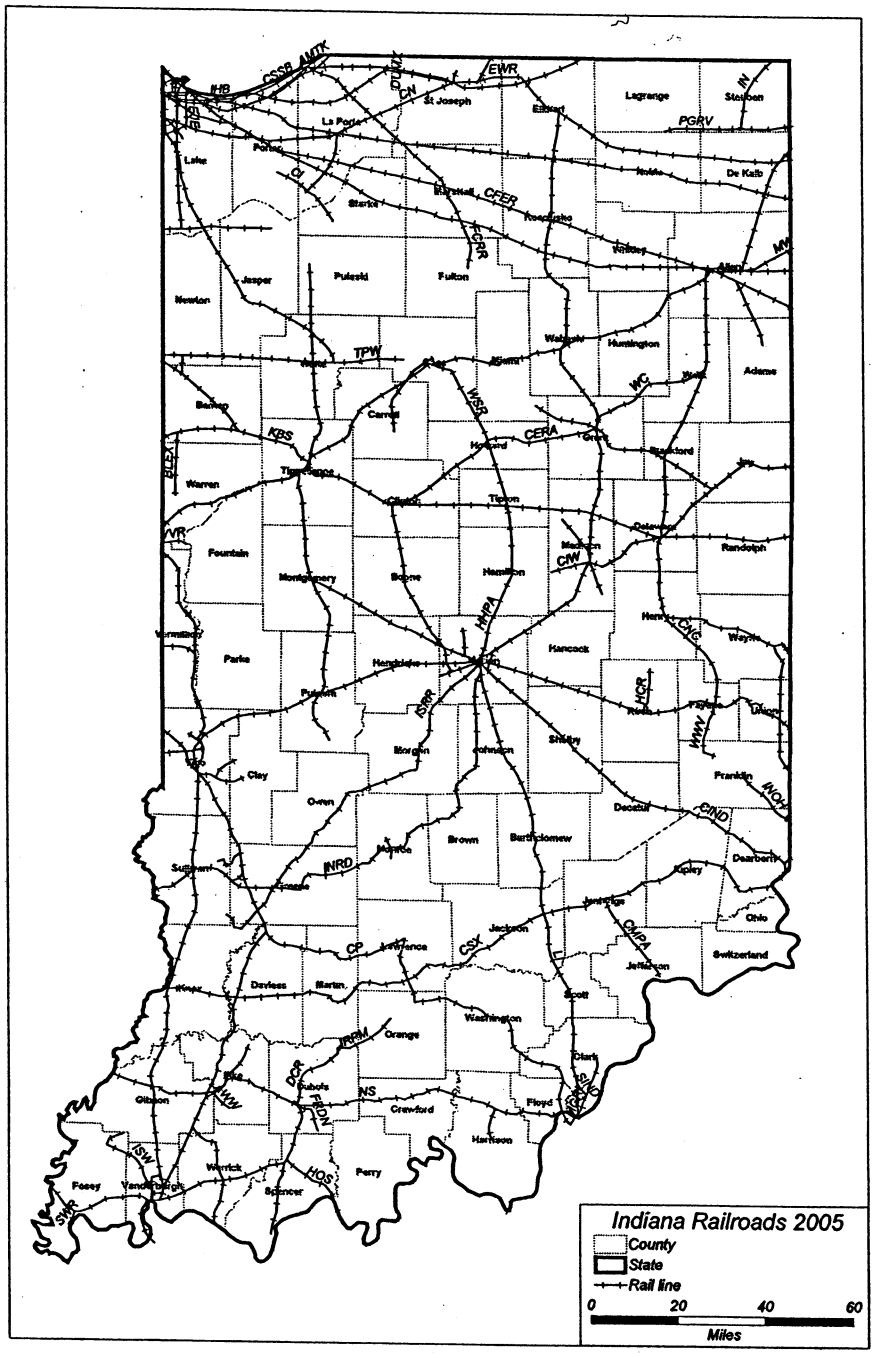

Figure 1-6. Indiana Portion of the Rail Network

Table 1-2. Nodes of the Rail Network and Coordinates

	ID	Longitude	Latitude	State	County
1	832454	-86754144	33129406	Alabama	
2	287311	-112372278	34989207	Arizona	
3	1154620	-92259754	34775464	Arkansas	
4	105441	-120015879	36974614	California	
5	486522	-104809612	38835637	Colorado	
6	2549093	-72631570	41656868	Connecticut	
7	2391830	-75575965	38928557	Delaware	
8	2382821	-77003398	38902120	District of Col	
9	912119	-82430773	29832155	Florida	
10	929464	-83557487	32849301	Georgia	
11	328414	-113478614	42751205	Idaho	
12	1592088	-89083508	39388413	Illinois-n	
13	1775449	-87774828	41804784	Illinois-s	
14	1846978	-84926327	40827592	Indiana	Adams
15	1852740	-85161050	41083426	Indiana	Allen
16	1814690	-85916090	39197325	Indiana	Bartholomew
17	1762637	-87193923	40517290	Indiana	Benton
18	1842508	-85356333	40444524	Indiana	Blackford
19	1790152	-86477502	40057303	Indiana	Boone
20	1814690	-85916090	39197325	Indiana	Brown
21	1790208	-86518057	40523962	Indiana	Carroll
22	1842548	-85368271	39958153	Indiana	Cass
23	1814578	-85751879	38409852	Indiana	Clark
24	1790144	-86528055	40285352	Indiana	Clinton
25	1744271	-86348011	38360123	Indiana	Crawford
26	1732068	-87215582	38658987	Indiana	Daviess
27	1814802	-85067132	39072894	Indiana	Dearborn
28	2644057	-85484267	39324882	Indiana	Decatur
29	1869007	-84888626	41381615	Indiana	DeKalb
30	1838582	-85369661	40188147	Indiana	Delaware
31	1735768	-86947774	38298435	Indiana	Dubois
32	1852556	-85813317	41585929	Indiana	Elkhart
33	1821269	-85135760	39641207	Indiana	Fayette
34	1744343	-85809374	38290139	Indiana	Floyd
35	1762565	-87425856	40146187	Indiana	Fountain
36	1821293	-85014921	39404550	Indiana	Franklin
37	1806118	-86205002	41071754	Indiana	Fulton
38	1731868	-87580879	38354813	Indiana	Gibson
39	1842468	-85651611	40545641	Indiana	Grant
40	1735960	-87230034	39197582	Indiana	Greene
41	1790264	-86013863	40045904	Indiana	Hamilton
42	1756508	-86131639	39806194	Indiana	Hancock
43	1744327	-86097445	38295961	Indiana	Harrison
44	1756508	-86131639	39806194	Indiana	Hendricks
45	1796347	-86385559	40758139	Indiana	Henry
46	1796339	-86122764	40498966	Indiana	Howard
47	1842524	-85474669	40885090	Indiana	Huntington
48	1751092	-85885231	38952889	Indiana	Jackson
49	1781053	-87147545	40948135	Indiana	Jasper
50	1846930	-84978270	40432590	Indiana	Jay
51	1814714	-85386745	38746116	Indiana	Jefferson

	ID	Longitude	Latitude	State	County
52	1814602	-85623831	39005108	Indiana	Jennings
53	1751148	-86062471	39487599	Indiana	Johnson
54	1731900	-87513090	38684812	Indiana	Knox
55	1806198	-85848876	41230090	Indiana	Kosciusko
56	1852628	-85354402	41524819	Indiana	Lagrange
57	1785363	-87369836	41606245	Indiana	Lake
58	1800242	-86780325	41416473	Indiana	Laporte
59	1744335	-86480813	38866762	Indiana	Lawrence
60	1838486	-85682204	40103210	Indiana	Madison
61	1756508	-86131639	39806194	Indiana	Marion
62	1806142	-86305013	41337591	Indiana	Marshall
63	1744263	-86770551	38648165	Indiana	Martin
64	1796403	-86075264	40752033	Indiana	Miami
65	1750956	-86533887	39165372	Indiana	Monroe
66	1762605	-86872512	40032304	Indiana	Montgomery
67	1751044	-86424708	39419542	Indiana	Morgan
68	1766481	-87440874	40770637	Indiana	Newton
69	1852636	-85261061	41448990	Indiana	Noble
70	1814802	-85067132	39072894	Indiana	Ohio
71	2644056	-86490857	38596124	Indiana	Orange
72	1744391	-86659450	39348423	Indiana	Owen
73	1744103	-87388079	39786465	Indiana	Parke
74	1744239	-86734705	37919284	Indiana	Perry
75	1735736	-87247239	38284821	Indiana	Pike
76	1788113	-87057044	41462716	Indiana	Porter
77	1724066	-87895573	37937319	Indiana	Posey
78	1796451	-86880870	41079248	Indiana	Pulaski
79	1744175	-86837236	39661762	Indiana	Putnam
80	1846906	-84977154	40181201	Indiana	Randolph
81	1814722	-85341034	39083996	Indiana	Ripley
82	1814770	-85448549	39610093	Indiana	Rush
83	1751092	-85885231	38952889	Indiana	Scott
84	1814730	-85773569	39513149	Indiana	Shelby
85	1744391	-86659450	39348423	Indiana	Spenser
86	1806254	-86261405	41675658	Indiana	St. Joseph
87	1800274	-86626982	41301476	Indiana	Starke
88	1856325	-85015156	41537697	Indiana	Steuben
89	1735928	-87399753	39082863	Indiana	Sullivan
90	1814714	-85386745	38746116	Indiana	Switzerland
91	1762621	-86882249	40418130	Indiana	Tippecanoe
92	1790272	-86034693	40286747	Indiana	Tipton
93	1821301	-84859081	39594270	Indiana	Union
94	1729329	-87539512	38003872	Indiana	Vanderburgh
95	1762517	-87459748	39952576	Indiana	Vermillion
96	1741705	-87368100	39504245	Indiana	Vigo
97	1842492	-85806076	40807866	Indiana	Wabash
98	1762597	-87248545	40303088	Indiana	Warren
99	1731972	-87274451	38047592	Indiana	Warrick
100	1744343	-85809374	38290139	Indiana	Washington
101	1831417	-84883253	39835657	Indiana	Wayne
102	1846946	-85175767	40744542	Indiana	Wells

	ID	Longitude	Latitude	State	County
103	1790176	-86865866	40753686	Indiana	White
104	1847034	-85628018	41081761	Indiana	Whitely
105	1250660	-93592647	41660809	Iowa	
106	1053150	-97657012	38376683	Kansas	
107	1680662	-87490279	37327872	Kenetuck-e	
108	1821453	-84180417	37985160	Kentucky-w	
109	1814682	-85044895	38739294	Kentucky	
110	710367	-92434166	31349811	Louisianna	
111	2630042	-69257594	44837910	Maine	
112	2391702	-76641607	39487994	Maryland	
113	2594729	-71688479	42426854	Massachusetts	
114	2558307	-70902019	41871596	Massachusetts	
115	2442298	-83242918	42378966	Michigan-e	
116	1979398	-85792580	43038938	Michigan-w	
117	1415491	-94364172	45976601	Minnesota	
118	1235763	-92290911	39233408	Missouri	
119	396739	-109059215	46306866	Montana	
120	1083504	-97986504	41125308	Nebraska	
121	277265	-116536567	40705654	Nevada	
122	2601835	-71582932	43452103	New Hampshire	
123	2516725	-74445580	40357995	New Jersey	
124	406547	-105214583	34610832	New Mexico	
125	2560517	-74993092	43036527	New York	
126	791241	-89851279	33088870	Nississippi	
127	2285896	-78782512	35791132	North Carolina	
128	1298188	-99128569	47674448	North Dakota	
129	2188395	-81747490	41479822	Ohio-n	
130	2154193	-82947863	39977347	Ohio-m	
131	1831193	-84482502	39181742	Ohio-s	
132	987867	-97507297	35467070	Oklahoma	
133	169375	-121780050	43215263	Oregon	
134	2400417	-77580267	40634032	Pennsylvania	
135	2558123	-71424558	41830201	Rhode Island	
136	2079666	-81049086	33973367	South Carolina	
137	553174	-100349715	44371072	South Dakota	
138	1680798	-86790833	36026512	Tennessee	
139	309972	-111864865	40593786	Utah	
140	2585658	-72964379	43601245	Vermont	
141	2301196	-78338342	37736959	Virginia	
142	230374	-120306809	47426637	Washington	
143	2196653	-80720195	38660199	West Virginia	
144	1940198	-89754693	44583260	Wisconsin	
145	530576	-105348600	43470478	Wyoming	

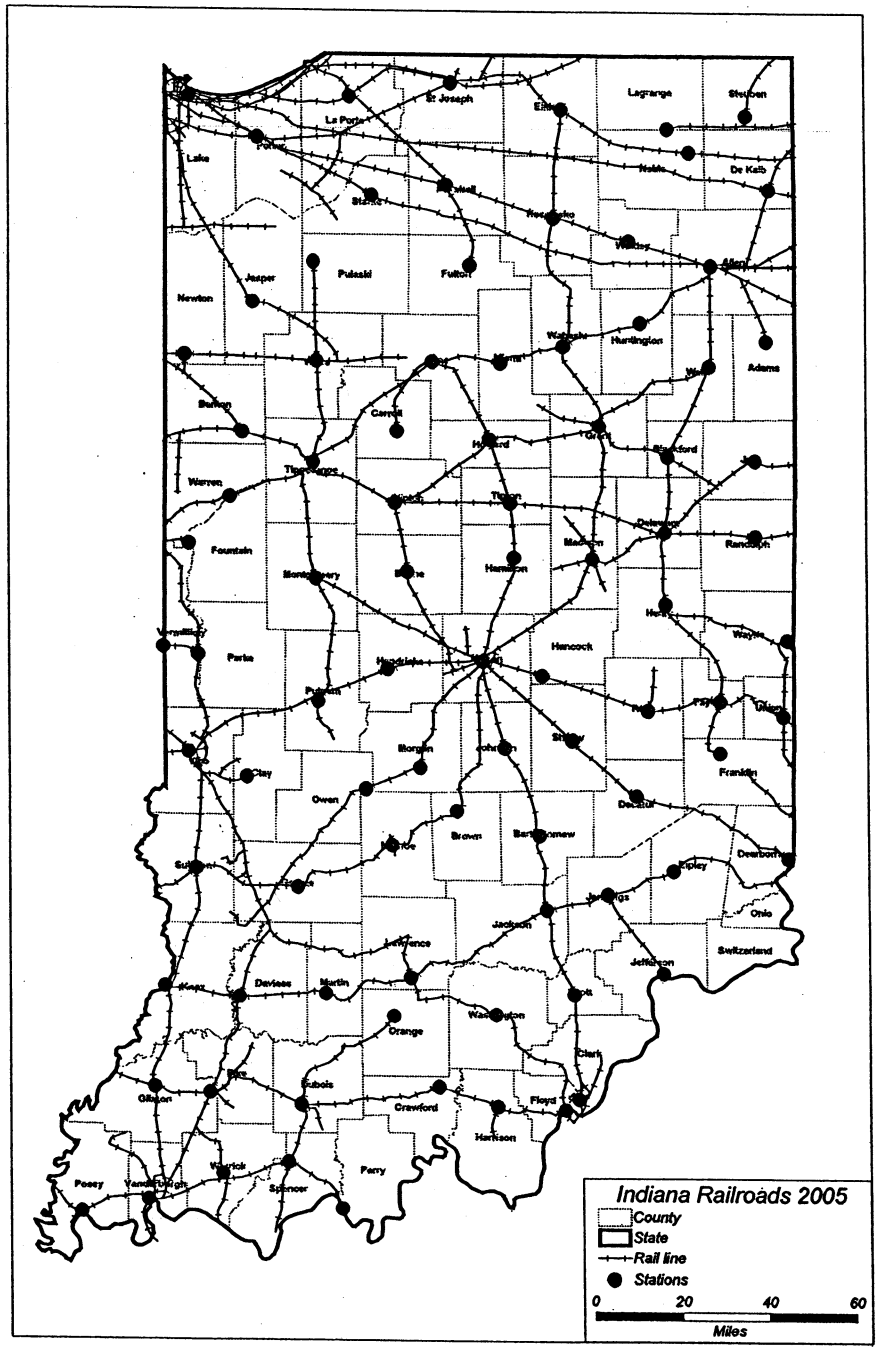

Figure 1-7. Nodes of the Indiana Rail Network

networks (Black, 1997). The great majority of the goods being transported on the water and air networks reached those networks via a transfer from the highway or the railway network.

The goods transported via the waterway network are generally bulk quantities of raw materials whose destination is outside the state of Indiana. With existing data we are unable to assert whether water flows are moving via the Great Lakes or the Ohio River. Even if we could make this distinction it would be hard to know what river ports are used for these flows. As a result we have supplied information on future water flows on CD as part of this research effort, but we have not assigned these to a water network.

The air transport network, though involved in the movement of some freight and express deliveries, is predominantly a passenger transport system. Intercity air travel was not included in the study. Most freight moving by air reached the air transport nodes via the highway network. This is discussed in more detail in later chapters of this report. It will be noted there that both parcel shipments and air freight are handled in a very explicit way. The study design of the project, therefore, has already captured the movement of those goods on the highway network.

Pipeline movement of freight is included in the freight transported. These flows are not examined in any further detail here, but they are included as part of the modal breakdown of freight traffic on the CD.

Summary

This chapter has introduced the objectives of the study, the approach taken in reaching this objective and the networks used for the highway and rail transport sectors. It was noted that the water network was not used as such. In addition to the data problems related to this mode, the waterway network is not maintained by the State of Indiana, but by the U.S. Army Corps of Engineers. The pipeline network is also not examined here. Even though these networks were not examined, there are forecasts of the movement of freight by water and pipeline provided here. In addition, although the air network was not included as such, air freight and parcel movements were viewed as "special" variations of the highway network as will be described later in the report.

References Cited

Black, William R. (1997), *Transport Flows in the State of Indiana: Commodity Database Development and Traffic Assignment: Phase 2.* Transportation Research Center and Department of Geography, Indiana University, Bloomington, IN.

Chapter 2

COMMODITIES EXAMINED AND DATA SOURCES

The 1997 state study sought to have the most detailed commodity grouping possible. For that research it was determined that the two-digit Standard Transportation Commodity Code (STCC) of commodity data provided by the 1993 *Commodity Flow Survey* (U.S. Bureau of Census, 1996) was the most suitable level of specificity. However, since that time the adopted classification methodology for freight movement in the US has evolved to a new system, the Standard Classification of Transported Goods (SCTG).

The level of specification for this research is the two-digit level for the SCTG as presented in the 1997 *Commodity Flow Survey* (U.S. Bureau of Census, 1999). It can be argued, as there are forty-one categories in this study compared to nineteen in the previous, that this study is an increase in specificity. This study, however, runs into the same problem as the 1997 work when trying to look at a higher level of commodity detail: a considerable amount of information is lost at higher levels of detail. To keep from revealing confidential aspects of individual firms operations (salaries, production volume, market areas), flags are placed in the data that can represent an insufficient sample size or simply a notice that data could not be disclosed. In these cases such values were excluded from the modeling and the subsequent models developed were used to replace the missing values. The table on the following page (Table 2-1) describes the commodities used in this study.

Employment and population data were also utilized in the modeling of the commodities. These data are coded by the North American Industrial Classification System, or NAICS, and appear in *County Business Patterns* (*CBP*) (U.S. Bureau of Census, 2004). The year of analysis for the *CBP* was for the year closest to 1997 commodity data, 1998. A three-digit NAICS level was used. However, there is no natural alignment between any level of NAICS data and SCTG data. However, there is a guide for determining the proportion of NAICS data to SCTG data. Symmetry was reached between the two data sets by determining the proportions of each NAICS commodity (the more specific level) within each SCTG commodity (the less specific level).

The study and the modeling here are based primarily on the 1997 *Commodity Flow Survey* (*CFS*). This was the latest version of the *CFS* with data available when the project began; the 2002 *CFS* appeared in 2005 and this was used for commodity discussions and model evaluation (U.S. Bureau of Census, 2005).

Table 2-1 Major Commodity Groups Included in the Study

SCTG	Commodity
01	Live Animals and Fish
02	Cereal Grains
03	Agricult Products Exc. Live Animals, Cereal Grains, and Forage Products
04	Animal Feed and Products of Animal Origin
05	Meat, Fish, Seafood, and Preparations
06	Milled Grain Products and Preparations, and Bakery Products
07	Prepared Foodstuffs, Fats, and Oils
08	Alcoholic Beverages
09	Tobacco Products
10	Monumental or Building Stone
11	Natural Sands
12	Gravel and Crushed Stone
13	Non-metallic Minerals
14	Metallic Ores
15	Coal
17	Gasoline and Aviation Turbine Fuel
18	Fuel Oils
19	Products of Petroleum Refining and Coal Products
20	Basic Chemicals
21	Pharmaceutical Products
22	Fertilizers and Fertilizer Materials
23	Chemical Products and Preparations
24	Plastics and Rubber
25	Logs and Other Wood in the Rough
26	Wood Products
27	Pulp, Newspaper, Print, and Paperboard
28	Paper or Paperboard Articles
29	Printed Products
30	Textiles, Leather, and Articles
31	Non-metallic Mineral Products
32	Base Metal in Primary or Semi-finished Forms and in Basic Shapes
33	Articles of Base Metal
34	Machinery
35	Electronic and Other Elect. Equipment/Components; Office Equipment
36	Motorized Vehicles
37	Transportation Equipment
38	Precision Instruments and Apparatus
39	Furniture, Mattresses, Lamps, Lighting Fittings, and Illuminated Signs
40	Miscellaneous Manufactured Products
41	Waste and Scrap
43	Mixed Freight

References

U.S. Census Bureau (1996), *1992 Census of Transportation, Communication, and Utilities "1993 Commodity Flow Survey."* Washington, D.C.: U.S. Department of Commerce.

U.S. Census Bureau (1999), *Economic Census, Transportation: 1997 Commodity Flow Survey*, Washington, DC: U.S. Department of Commerce.

U.S. Census Bureau (2004), *1998 County Business Patterns*, Washington, DC: U.S. Department of Commerce. Web page, http://www.census.gov/epcd/cbp/view/cbpview.html, various access dates.

U.S. Census Bureau (2005), 2002 *Commodity Flow Survey*, Washington, DC: U.S. Department of Commerce. CD C1-E02-ECFS-00-US1

Chapter 3

GOODS EXAMINED AND TRANSPORT FACILITIES

All Commodities

A discussion of the existing flows of commodities is limited by the nature of freight data collection in the US. The latest available data for comparison are from the 1997 *Commodity Flow Survey* (*CFS*) of the Department of Commerce, released in 1999 and the 2002 *Commodity Flow Survey* released by the same agency in 2005. The project which led to the preparation of this report was initiated with the idea that it would use 1997 data for all modeling. The appearance of the 2002 census led to certain revisions in the study design so as to make use of these newer data. For one thing the discussion of commodities in this chapter makes use of both the 1997 and the 2002 census databases. In addition the 2002 census was used as a target date for modeling the flows using 1997 data. In other words, the models derived were used to estimate values for 2002. This will be described in a later chapter where we evaluate the models.

With each of the last three *CFS*s, the nationwide sample size has shrunk. The original *CFS* included a sample of the shipping practices of 200,000 shippers. In 1997 the *CFS* involved only 100,000 shippers. The most recent *CFS* surveyed the shipping of only 50,000 firms. This means that the quality of the data, and thus the quality of subsequent analyses, is most likely declining in accuracy and specificity. While the precursor to this research, the 1997 Indiana flow study (involving data from 1993), was able to describe the breakdown of shipments to and from individual states with some confidence, the 1997 data had far more missing values that needed to be estimated.

Another limitation has arisen with the change from Standard Transportation Commodity Classification (STCC) codes to the Standard Classification of Transported Goods (SCTG) codes for classification of commodities. This was a consequence of the North American Free Trade Agreement, also known as NAFTA, which necessitated a bridge between Canadian shipment codes and US shipment codes. The result has been a new set of commodity groups that is largely incompatible with the previous set of these commodity groups. While even some names at the 2-digit level have remained the same, the individual subcategories have been drastically altered. Any comparison to flows from the previous study, therefore, would be biased by changes in the subcategories making up each classification code. As mentioned earlier, further specification (at

the 3 or 4-digit level) is undesirable due to the smaller sample and impossible due to the reporting restrictions for these data.

Summary tables of the commodities, tons, and values originating in Indiana in 1997 and 2002 appear on the following pages as tables 3-1 and 3-2.

The discussion of the commodities below includes value, tonnage, and average shipment length of goods originating in and attracted to Indiana. This is for the 41 major classes of commodities summarized in the tables on the following pages.

Individual Commodities

SCTG 01: Live Animals and Fish

Most of the information on SCTG 01 is flagged due to sampling and other error in the 1997 *CFS*. The only data available indicate that 926,000 tons of Live Animals and Fish were shipped in 1997. Shipments leaving Indiana averaged 506 miles per shipment. Travel on trucks averaged 197 miles per shipment, while shipments on multiple modes averaged 787 miles. Other and unknown modes averaged 47 miles per shipment.

By 2002 the transport of live animals and live fish had dropped to nothing according to the *CFS*. Although there was a slight drop at the national level, it is more likely that the sampling design simply missed the sector in Indiana. This does not mean that the industry is gone in an absolute sense. It is likely that in the Indiana case there may have been shippers moving cattle, chickens or turkeys to market, and these were simply not sampled in 2002. It should be noted that the data were not withheld due to disclosure requirements or statistically unreliability; the industry is simply not reported and this suggests it may have been missed by the sampling system used in the *CFS*.

The attraction of live animals to Indiana in 1997 was 320,000 tons valued at $348 million. Looking at this sector in 2002 the attractions are not reported primarily due to potential unreliability of the sample size. The problems with this sector are undoubtedly related to the decrease in overall sample size of the *CFS* and this a demonstration of the inherent problems in decreasing the size of the sample.

SCTG 02: Cereal Grains

In 1997 Indiana shipped 12.32 million tons of cereal grains at a value of $1.36 billion dollars; these moved an average of 89 miles. Almost all of these shipments were by single modes. Trucks accounted for 5 million tons (40.6%) of shipments and $528 million of value (38.8%), while distance shipped averaged 52 miles per shipment. Rail accounted for a significant load of cereal grain traffic, with 6.17 million tons (50.1%) worth $705 million

Table 3-1 Value and Tons of Commodities for Indiana, 1997

SCTG Code	Commodity Group	Value (millions)	Tons (thousands)
01	Live Animals and Fish	N/A	926
02	Cereal Grains	$1,362	12,316
03	Agricultural Products Except Live Animals, Cereal Grains, and Forage products	2,323	7,318
04	Animal Feed and Products of Animal Origin	2,443	6,759
05	Meat, Fish, Seafood, and Preparations	2,172	1,018
06	Milled Grain Products and Preparations, and Bakery Products	4,746	3,664
07	Prepared Foodstuffs, Fats, and Oils	7,725	12,856
08	Alcoholic Beverages	1,348	1,315
09	Tobacco Products	561	31
10	Monumental or Building Stone	102	535
11	Natural Sands	27	6,772
12	Gravel and Crushed Stone	456	80 ,944
13	Non-metallic Minerals	204	7,559
14	Metallic Ores	N/A	N/A
15	Coal	552	24,817
17	Gasoline and Aviation Turbine Fuel	4,620	20,031
18	Fuel Oils	2,706	14,141
19	Products of Petroleum Refining and Coal Products	3,273	26,530
20	Basic Chemicals	1,740	7,653
21	Pharmaceutical Products	N/A	83
22	Fertilizers and Fertilizer Materials	626	2,738
23	Chemical Products and Preparations	2,816	1,367
24	Plastics and Rubber	7,732	2,310
25	Logs and Other Wood in the Rough	101	N/A
26	Wood Products	2,911	3,212
27	Pulp, Newspaper, Print, and Paperboard	1,113	1,3 63
28	Paper or Paperboard Articles	1,997	1,553
29	Printed Products	10,893	2,527
30	Textiles, Leather, and Articles	6,216	329
31	Non-metallic Mineral Products	3,510	18,975
32	Base Metal in Primary or Semi-finished Forms and in Basic Shapes	23,929	38,952
33	Articles of Base Metal	6,630	3,077
34	Machinery	17,486	2,540
35	Electronic and Other Electrical Equipment and Components; Office Equipment	17,989	2,062
36	Vehicles	34,975	8,370
37	Transportation Equipment	2,364	N/A
38	Precision Instruments and Apparatus	3,117	62
39	Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs	3,817	676
40	Miscellaneous Manufactured Products	12,838	3,182
41	Waste and Scrap	1,512	8,426
43	Mixed Freight	1,356	481

Table 3-2 Value and Tons of Commodities for Indiana, 2002

SCTG Code	Commodity Group	Value (millions)	Tons (thousands)
01	Live Animals and Fish	N/A	N/A
02	Cereal Grains	$1,948	12,316
03	Agricultural Products Except Live Animals, Cereal Grains, and Forage products	1,911	7,318
04	Animal Feed and Products of Animal Origin	811	6,759
05	Meat, Fish, Seafood, and Preparations	1,774	1,018
06	Milled Grain Products and Preparations, and Bakery Products	N/A	3,664
07	Prepared Foodstuffs, Fats, and Oils	12,356	12,856
08	Alcoholic Beverages	276	1,315
09	Tobacco Products	1,108	31
10	Monumental or Building Stone	N/A	535
11	Natural Sands	62	6,772
12	Gravel and Crushed Stone	402	80,944
13	Non-metallic Minerals	415	7,559
14	Metallic Ores	73	N/A
15	Coal	477	24,817
17	Gasoline and Aviation Turbine Fuel	8,180	20,031
18	Fuel Oils	2,055	14,141
19	Products of Petroleum Refining and Coal Products	3,406	26,530
20	Basic Chemicals	2,354	7,653
21	Pharmaceutical Products	6,063	83
22	Fertilizers and Fertilizer Materials	1,065	2,738
23	Chemical Products and Preparations	7,351	1,367
24	Plastics and Rubber	11,835	2,310
25	Logs and Other Wood in the Rough	N/A	N/A
26	Wood Products	3,877	3,212
27	Pulp, Newspaper, Print, and Paperboard	N/A	1,363
28	Paper or Paperboard Articles	2,857	1,553
29	Printed Products	3,211	2,527
30	Textiles, Leather, and Articles	10,962	329
31	Non-metallic Mineral Products	3,369	18,975
32	Base Metal in Primary or Semi-finished Forms and in Basic Shapes	23,253	38,952
33	Articles of Base Metal	8,328	3,077
34	Machinery	30,097	2,540
35	Electronic and Other Electrical Equipment and Components; Office Equipment	23,158	2,062
36	Vehicles	56,621	8,370
37	Transportation Equipment	N/A	N/A
38	Precision Instruments and Apparatus	4,145	62
39	Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs	4,678	676
40	Miscellaneous Manufactured Products	12,558	3,182
41	Waste and Scrap	1,483	9,883
43	Mixed Freight	29,361	8,782

(51.7%) traveling an average of 577 miles. Water shipments (entirely in shallow draft) accounted for 1.15 million tons (9.3%) and $129 million (9.4%) in goods, average 835 miles per shipment.

Shipments increased in 2002 to 23.85 million tons, nearly twice the 1997 volume, but the value of these shipments only increased to $1.94 billion (an increase of 43%). One could attribute part of this to an export market, however since the shipments in the *CFS* only indicate the domestic destinations, i.e., the point of export, we do not know where the shipments were going outside the U.S. This suggests that the drop in value per unit of weight was most likely related to an increase in production, or possibly a substantial negotiated trade agreement. The length of shipments was up substantially to 354 miles with 81% of the shipments moving by rail and 12% moving by water.

The attraction of cereal grains to Indiana destinations in 1997 was valued at $817 million and represented 7,790,000 tons. This was moved an average of 62 miles suggesting that the grains also originated in Indiana for the most part.

The value of these grain shipments in 2002 was significantly lower with the value dropping to $430 million and the tonnage dropping to 4,325,000 tons, slightly more than half of its 1997 level. Shipment length was 242 miles, representing a significant jump from 1997.

SCTG 03: Other Agricultural Products

There were 7.32 million tons of other agricultural products with a value of $2.3 billion dollars shipped from Indiana in 1997. These products include crops such as soya beans, dried fruit, potatoes, vegetables, and flowers. The average length of these shipments was 149 miles. Among these products, 88.4% of tons (6.5 million) and 89.4% ($2.1 billion) of the value was shipped an average of 101 miles by single modes of travel. Truck shipments were 3.15 million tons (43%) with a value of $1.25 billion (53.8%) and averaged 99 miles per shipment. Rail modes accounted for about 2 million tons (27.2%) and $483 million (20.8%), and averaged 538 miles in shipment length. Water shipments also occurred, most along shallow draft, which accounted for 1.33 million tons (18.2%) and $344 million (14.8%), averaging 817 miles. Multiple mode shipments averaged 763 miles, while unknown modes averaged 226 miles.

These shipments were down slightly for Indiana in 2002. They amounted to 7.17 million tons valued at $1.9 billion, which were shipped an average of 158 miles. Truck modal share had increased to 58.9% of the tonnage and 73.3% of the value, while rail shares had dropped to 23.5% and 15%, respectively. Transfers by water also dropped in an absolute and share sense between 1997 and 2002. There were no shipments by multiple modes in 2002 based on the *CFS* of that year.

The attraction of other agricultural products to Indiana locations in 1997 was at 3,884,000 tons and this was valued at $1.574 million. Contrary to the grain case, other agricultural products saw a significant jump in tonnage and value at the time of the 2002 *CFS*. The value had risen to 2.019 million dollars on 5.252 million tons of products. The 207 mile shipment length would suggest that much of this originated outside of Indiana in 1997, but this was to increase even more in 2002 to 388 miles.

SCTG 04: Animal Feed and Products of Animal Origin

There were 6.76 million tons of animal feeds and similar products, valued at $2.44 billion, shipped an average of 105 miles from Indiana in 1997. This commodity group includes products such as feed for cattle, bird seed, and cat and dog food. Over 99% of this group moved as single mode shipments an average distance of 50 miles. Trucks accounted for 5.56 million tons (82.2%) worth $2.2 billion (90.3%), and moved an average of 43 miles. Rail modes accounted for 1.2 million tons (17.6%), $228 million (9.3%) in value and moved an average of 688 miles. What few multiple mode shipments there were averaged 1,074 miles, while other/unknown modes averaged 835 miles per shipment. By 2002 production had dropped to 3.91 million tons and $805 million. The truck modal share had dropped to 59.9%, and rail had increased to 34.3%.

The attraction of goods from this sector to Indiana destinations experienced a drop between the samples for1997 to 2002. In the former year the tonnage was 5.278 million tons compared to 3.997 million tons in 2002. The value of these shipments also dropped as would be expected; it was $2.1 billion in 1997 and $1.0 billion in 2002. The average shipping distance of 51 miles would suggest most origins were in Indiana.

SCTG 05: Meat, Fish, Seafood, and Their Preparations

A total of 1.1 million tons of meats and poultry, valued at $2.17 billion dollars, originated in Indiana in 1997. Almost all (99.5% of value and tonnage) were single mode shipments. Furthermore, as could be expected, almost all (99% of value and tonnage) was by truck. Shipments moved an average distance of 101 miles.

Shipments from this sector also dropped in 2002. Tonnage had decreased to 871 thousand tons, valued at $1.77 million. All of these shipments moved by motor carrier. The average length of haul was 142 miles.

The goods in this group sent to Indiana destinations increased significantly in value from 1997 to 2002. The values were $2.9 billion and $4.2 billion, respectively. The tonnage changed from 1.1 billion to 1.6 billion tons. The length of these moves increased over the 1997 to 2002 period from 136 miles to 188 miles.

SCTG 06: Milled Grain Products and Preparations, and Bakery Products

There were 3.66 million tons of this commodity group, worth $4.75 billion, shipped from Indiana origins in 1997. The group included products such as baked goods, wheat flour, malt, and pasta, which was shipped an average distance of 134 miles. Over 98% of the tonnage and value moved by single modes averaging 119 miles per shipment. Three million tons (82%) and $4.53 billion (95.5%) in value traveled an average of 116 miles by truck. Rail shipments moved an average of 662 miles and included 452,000 tons (12.3%) that were worth $116 million (2.4%). The minimal amount of water shipments (no exact data available) averaged 1,140 miles per shipment, while multiple mode shipments averaged 708. Changes in tonnages and values in 2002 were not very significant.

The attraction of milled grain products and other goods in this sector to Indiana nearly doubled in value and tonnage between the two *CFS* years. The value of shipments received was $2.4 billion dollars in 1997 and this had increased to $4.8 billion in 2002. Tonnage increased from 2.3 million tons to 4.4 million tons in 2002.

SCTG 07: Other Prepared Foodstuffs and Fats and Oils

This sector includes milk, cheeses, ice creams, juices, fats and oils, among a broad list of other foodstuffs. A total of 12.9 million tons of this group, valued at $7.73 billion, moved an average of 75 miles per shipment. Slightly less than 97% of this tonnage and 99% of the value traveled via single modes an average of 72 miles per shipment. Trucks accounted for 10.4 million tons (81%) and $7 billion (90%) of the group's value. These shipments moved an average of 69 miles. Two million tons (16%), valued at $607 million (8%), moved an average of 829 miles via rail. An undisclosed amount of air shipments traveled 700 miles per load, while 1.0% ($78 million) of the goods total value was shipped by multiple modes an average of 575 miles.

The volume and value of this commodity group were up in 2002 to 16.1 million tons and $12.36 billion, respectively. The increase was picked up primarily by motor carriers, which increased their modal share to 87.1% of the tonnage and 95.9% of the value. Rail was responsible for most of the remainder.

Shipments of these goods to Indiana destinations were probably to a large extent from Indiana origins since the average shipping distance was only 79 miles. The value of such terminating shipments increased in value only slightly from $8.2 billion to $9.1 billion. The tonnage was 9.5 million tons in 1997 compared with 12.6 million tons in 2002. This suggests a significant drop in the value per ton.

SCTG 08: Alcoholic Beverages

Beers, wine and other alcoholic beverages amounted to 1.3 million tons worth $1.35 billion in 1997. These were shipped an average of 48 miles per shipment. Over 98% of value and tonnage traveled in single mode journeys, averaging 47 miles per shipment. Almost all of this commodity group (1.29 million tons and $1.3 billion of its value) moved 47 miles by truck per shipment. The undisclosed amount traveling on rail moved 1,006 miles per shipment. $16 million (1.2%) traveled 847 miles per shipment via multiple modes.

The volume and value of this commodity group dropped significantly in 2002 according to the *CFS* for that year. Tons were down to 303 thousand and value was down to $276 million, representing decreases of 77% and 80%, respectively, from their 1997 levels. Motor carriers moved this commodity group an average of 64 miles per shipment in 2002.

Shipments of alcoholic beverages to Indiana destinations dropped between 1997 and 2002, both in value and tonnage. In 1997 the value was $1.7 billion and by 2002 this had dropped to $867 million, a drop of nearly 50%. The tonnage of this product also dropped from 1.8 million tons in 1997 to 1.2 million tons in 2002. These shipments moved an average of 61 miles suggesting numerous origins for these shipments in Indiana. On the other hand this distance increased to 241 miles in 2002.

SCTG 09: Tobacco Products

Only 31,000 tons, valued at $561 million, of tobacco products were shipped from Indiana origins an average of 45 miles per shipment in 1997. Over 99% of the value and tonnage were by single modes an average of 40 miles, almost exclusively by truck. Multiple mode shipments averaged 415 miles, almost all reportedly occurring by mail service.

By 2002 motor carriers had captured all of this traffic. Traffic production was up in 2002 to $1.1 billion, while tonnage had dropped to 16,000 tons. Average length of shipment was nearly the same (39 miles).

Tobacco product shipments to Indiana destinations in 1997 were 48,000 tons valued at $948 million. These shipments have dropped significantly to 22,000 tons, but the value of shipments has actually increased to $1.1 billion. The average length of shipment was 179 miles suggesting out of state origins for most of the shipments. This distance value increased to 304 miles in 2002.

SCTG 10: Monumental or Building Stone

There was 535,000 tons of monumental and building stone worth $561 million dollars shipped an average of 45 miles per shipment in 1997. Over 99% of the value and tonnage moved

by single modes, and averaged 40 miles per shipment. Almost all of these shipments were by truck. An undisclosed amount of multiple mode shipments averaged 145 miles per shipment.

By 2002 shipments had dropped significantly. In fact the shipments were so low that nothing was reported in 2002 except for the average shipment length of seven miles. We do know that truck remained the dominant mode, but the data collected was considered too unreliable for publication. This probably indicates a loss of market share for this sector of Indiana's economy. It has been under significant pressure from various concrete manufacturers.

The value of monumental and building stone shipped to Indiana destinations was suppressed in 1997 and 2002. We do know that the weight of these shipments was 476 million tons, but once again the smaller sampling rate misses this industry for 2002. The industry continues to be viable for specialized construction needs.

SCTG 11: Natural Sands

A total of 6.7 million tons of natural sands valued at $27 million was shipped an average of 24 miles from Indiana origins in 1997. This would suggest that most of the traffic also terminated in Indiana. No tonnages are disclosed, but $22 million worth moved by single modes for 25 miles per shipment. Of this amount 76.8% ($20.8 million) was shipped by truck an average distance of 25 miles. Water shipments, meanwhile, traveled 237 miles, while multiple modes traveled 474 miles per shipment.

This sector saw some growth and by 2002 the tonnages had increased to 14.7 million tons valued at $62 million. Motor carriers moved 100% of this traffic and average of 15 miles per shipment.

The shipment of natural sands to Indiana destinations nearly doubled in value and tonnage for the two *CFS* years. The value increased from $57 million in 1997 to $103 million in 2002, on tonnages of 8 million tons and 16 million tons, respectively. Average length of these shipments was 59 miles suggesting mostly in-state origins.

SCTG 12: Gravel and Crushed Stone

Almost 81 million tons of gravel and crushed stone with a value of $456 million was shipped from Indiana origins in 1997. The average shipment length was 24 miles so this is also a product group usually destined for Indiana. More than 98% of the tonnage (80 million tons) and 97% of the value ($446 million) were shipped by single modes an average distance of 22 miles. Most of this is by truck (77.5 million tons or 95.7% and $432 million or 94.8%) an average distance of 22 miles per shipment. Shallow draft water modes accounted for 2.6% of the tonnage and 3.1% of the value shipped, averaging 359 miles per shipment. Multiple mode shipments averaged 447 miles.

Both the tonnage and value of gravel and crushed stone shipments dropped in 2002. The new values were 73 million tons and $402 million. Trucking continued as the dominant shipping mode with 94.3% of the tonnage.

Shipments of this low-valued product to Indiana destinations dropped between 1997 and 2002 from 82 million tons to 71 million tons, with decreases in total value from $466 million to $418 million. Shipment length was about 34 miles which is consistent with the low value of the product. This distance dropped to 20 miles in 2002 *CFS*.

SCTG 13: Nonmetallic Minerals

In 1997 nonmetallic minerals, which includes limestone, clays, and salt and other such minerals, accounted for 7.56 million tons with a value of $204 million. Of this 98% of the tonnage and value were shipped by single modes an average of 57 miles. Of the total 7.4 million tons (98.2%) worth $189 million (92.5%) were shipped by truck, with an average distance of 56 miles. Undisclosed rail shipments averaged 1,667 miles per shipment, while multimodal shipments averaged 310 miles.

Although the value of these shipments was up in 2002 to $415 million, other data on tonnages and mode shares were considered too unstable statistically to report.

Shipments of non-metallic minerals to Indiana destinations amounted to 10 million tons in 1997, valued at $295 million. These shipments were valued at $411 million in 2002, but the tonnage value was withheld. It is reasonable to infer that the tonnage of these shipments increased in 2002. Most of these shipments would be between Indiana locations as the average shipping distance was about 98 miles.

SCTG 14: Metallic Ores and Concentrates

There is very limited information about the shipment characteristics for metallic ores and concentrates (usually iron ores in Indiana's case) for 1997. We only know that average travel distance shipped by for-hire truck is 396 miles, while multiple modes and other and unknown modes averaged shipping distances of 166 mile and 276 miles respectively. This may very well indicate shipments of foreign origin being counted as originating at an Indiana Great Lakes port.

In 2002 the tonnage shipped was 66 thousand tons, valued at $73 million. Motor carriers control most of this traffic with a 99% share of both tonnage and value. The average length of these shipments was 318 miles.

Shipments of these ores to Indiana destinations come for the most part from outside of

the state, except for the port case above. The state really has no indigenous metallic ores except for those it receives from other areas and then may transship from one Indiana location to another. The value of these shipments was $295 million in 1997 and this increased to $558 in 2002. The values also increased from 13.5 million tons in the former year to 17.6 million tons in the latter year. Shipping distances increased substantially from 263 miles to 446 miles.

SCTG 15: Coal

There was 24.19 million tons of coal valued at $552,000 million shipped from Indiana origins in 1997. The average shipment length was 33 miles. Approximately 85% of the tonnage and 87% of the value was shipped by single modes, averaging 33 miles per shipment. There were 3.6 million tons (15%) and $62 million (11.3%) shipped by truck and average of 30 miles per shipment. Coal is a major product moved by rail in the U.S. and in the case of Indiana it accounted for 16.86 million tons (69.7%) worth $416 million (75.3%) for which the average shipping distance was 109 miles. The multiple mode shipments averaged 120 miles, with no disclosed value and tonnage data available.

For 2002 the total coal moved is nearly the same with differences being accounted for by changes in energy demand for heating or cooling. Total tonnage moved was 23.45 million tons valued at $477 million. Rail lost some modal share by 2002. It moved about 52% of the tonnage and trucks picked up 36.5% of this traffic. Average length of shipments was 82 miles by truck and 60 miles by rail, which is counter to the general tendency for these modes.

Shipments of coal to Indiana destinations averaged 76 miles in 1997 (and 94 miles in 2002), most likely representing shipments from the southwestern part of the state to other state destinations. The tonnages of 50.2 million tons in 1997 and 62.2 million tons in 2002 reflect increasing demand in the state. The value of these shipments increased from 1 billion dollars in 1997 to 2.6 billion dollars in 2002.

SCTG 17: Gasoline and Aviation Turbine Fuel

A total of 20 million tons, valued at $4.6 billion dollars, originated in Indiana, with an average shipping distance of 40 miles. Almost all (99.9% of the value and tonnage) were single mode shipments. Of the total, 86.2% of tonnage ($17.27 million tons) and 87.1% of value ($4 billion dollars) were shipped by truck an average of 40 miles. No further data were offered.

By 2002 the tonnage had increased to 30.8 million tons with a value of $8.2 billion. Approximately 43% of the tonnage moved by motor carriers and the remainder moved by pipeline. Average length of shipments in both cases was 29 miles.

There was a substantial increase in the value of these shipments to Indiana destinations between 1997 to 2002 of $5.8 billion to $10.1 billion. Tonnages also increased from 35.4

million tons to 39.5 million tons, but this increase is low compared to the doubling of value reflecting the higher price of these goods in 2002. Shipping distances increased from 29 to 39 miles.

SCTG 18: Fuel Oils

A total of 14.14 million tons of fuel oil, valued at $2.7 billion, originated in Indiana in 1997. Almost all (99.9% of the value and tonnage) were single mode shipments. 68.1% of the tonnage (9.6 million tones) and 70.3% of the value ($1.9 billion dollars) were shipped by truck. The average shipment length by water and air are 2 and 543 miles respectively, and there is no further information available for 1997.

Motor carriers increased their modal share in 2002, but they lost traffic. Tonnages dropped in 2002 to 8.6 million tons and $2.1 billion in total. Trucks picked up 85.8% of this traffic with rail and pipelines sharing the rest.

Shipments of fuel oil to Indiana destinations actually dropped between the two *CFS* years. These were 16.4 million tons in 1997 and 11.3 million tons in 2002. The value of these shipments also decreased from $3 billion in 1997 to 2.6 billion in 2002. Shipment length of 19 miles would suggest these were mostly movements from pipelines in Indiana to Indiana distributors. The value remained low at 26 miles in 2002.

SCTG 19: Coal and Petroleum Products

Indiana shipped 26.5 million tons of coal and petroleum products, valued at $3.3 billion dollars in 1997. This commodity group includes lubricating oils, liquified natural gas, asphalt, and similar products. The shipments for this group averaged 46 miles. Almost all of the value and tonnage (99.6% of value and 99.7% of tonnage) were single mode shipments with an average shipment distance of 45 miles. Among the total shipments of this commodity, 17 million tons (6.9%) and $1.95 billion dollars (59.7%) were shipped by truck. No other number is available for the rail, air or pipeline shipments except the average distance of 157 miles per air shipment.

In 2002 the tonnages were up. A total of 30.8 million tons valued at $3.4 billion was shipped. Trucks handled 63.5% of the tonnage, while rail handled 8.2%. The residual was picked up by air, pipeline, water and multiple modes in small enough amounts not to be reported.

Shipments of coal and petroleum products to Indiana destinations dropped only slightly between the two years. These were valued at $3.7 billion in 1997 and this dropped to $3 billion in 2002. Tonnages dropped slightly from 27.5 million tons to 25.1 million tons. Shipping distances averaged 53 miles and this would suggest primarily internal movement of these products within the state. The increase in this distance in 2002 to 81 miles does not change this

conclusion.

SCTG 20: Basic Chemicals

Almost 7.65 million tons of basic chemicals with a value of $1.74 billion were shipped from Indiana in 1997. This commodity group includes a host of chemicals and chemical compounds including among others bases, acids, phenols, and industrial gases. More than 99% of the tonnage (7.6 million tons) and 97.6% of the value ($1.7 billion) were shipped by single modes. About 3.8 million tons (50%) and $1.35 billion dollars (77.4%) were shipped by truck, with an average distance of 43 miles. Another $241,000 (13.8%) was shipped by rail with tonnages and average shipping distances unavailable, but it is know that the average distance for air shipments was 1,180 miles. About $32 million (1.9%) of value was shipped by multiple modes, with undisclosed tonnage or average shipping distance.

Tonnages had dropped significantly by 2002. In that year the total tonnage shipped was 4.3 million tons valued at $2.4 billion. Of these tons, approximately 46% moved by rail, and most of the remainder moved by truck except for a small amount moved by air. Truck shipping distances were an average of 272 miles in comparison to the air average of 1,886 miles.

Shipments of chemicals to Indiana destinations decreased over the two years examined here. Tonnages were 7,505,000 in 1997 and 3,469,000 in 2002; the value of these in 1997 was $2.3 billion and $1.8 billion in 2002. The average shipping distance in 1997 was 189 miles which would suggest that these are coming primarily from out of state. By 2002 this was more evident with an average shipping distance of 482 miles.

SCTG 21: Pharmaceutical Products

Indiana shipped 83,000 tons of pharmaceuticals in 1997 with an average shipping distance of 392 miles per shipment. Shipments going by single mode totaled 67,000 tons or 81% of the total weight shipped, with those shipments averaging 113 miles. Most of these were truck shipments (66,000 tons, 79.6%). The only data available for value reveal 1.35 billion dollars in private truck pharmaceutical shipments. There was also 297 million dollars (2.7% of all value) shipped by air, traveling an average distance of 424 miles per shipment. In addition, 14,000 tons (17.3%), with a value of 965 million dollars, were shipped by multiple modes an average distance of 595 miles.

Traffic in pharmaceuticals was up in 2002. Shipments totaling 235,000 tons, representing a three-fold increase, were reported. Value of these shipments was reported at $6.1 million. Motor carriers remained the dominant carrier with 91.4% of the tonnage moving an average of 323 miles. The remaining tonnage was moved by parcel post or couriers and averaged 363 miles.

The shipments having destinations in Indiana increased substantially between 1997 and 2002. These were 205 thousand tons in 1997 and 751 million tons in 2002. These are low tonnages, but one should bear in mind that we are talking about pharmaceuticals which have low weight. The value on the other hand increased from $4.9 million to $10.2 million. These shipments reflect a national pattern in that the average length of shipments is 728 miles. This distance had dropped substantially by 2002 and was 406 miles.

SCTG 22: Fertilizers

There were 2.74 million tons of fertilizers moved an average shipment length of 447 miles in 1997; its value was $626 million. Single modes accounted for 2.29 million tons, 83.5% of all shipments; these were valued at $562 million, nearly 90% of the total, and averaged 20 miles per shipment. Almost all single mode shipments (82%) were by truck. No further data is available with the exception of shipments made on shallow draft water, which averaged 1,140 miles. This accounts for the multiple mode average of 971 miles, though only 3,000 tons were shipped this way – a tenth of a percent of all shipments.

Tonnages more than doubled by 2002, when 5.86 million tons of fertilizers worth $1.1 billion originated in Indiana. Motor carriers moved 90.6% of this with lesser amounts moved by rail and water.

Shipments of fertilizers to Indiana destinations increased from 5.2 million tons in 1997 to 7.8 million tons in 2002. The value of these also increased from $1 billion to $1.4 billion in 2002. These shipments most likely went from distribution centers to retail outlets in that the average length of these shipments was 61 miles.

SCTG 23: Chemical Products and Preparations

A total of 1.37 million tons of chemical products and preparations, valued at $2.8 billion, originated in Indiana and moved an average of 271 miles in 1997. This commodity group includes products such as paints and varnishes, soaps, pesticides, perfumes and cosmetics, among others. Approximately 1.3 million tons (95.8%) valued at $2.36 billion (83.7%) traveled via single modes an average distance of 174 miles. Almost all of those shipments (94.1% of the total) moved by truck. What little rail traffic there was (values and tons were flagged), moved 2,314 miles per shipment. There were also some air shipments; these averaged 1,119 miles per shipment. There were also shipments involving multiple modes; these shipments averaged 376 miles.

This sector saw significant growth between 1997 and 2002 with the latter year having traffic production of 2.19 million tons, valued at $7.4 billion. Of this amount motor carriers moved 94.2% with lesser amounts moved by rail and some courier services. Average shipping distances overall were 199 miles.

Plastics and rubber shipments to Indiana destinations were 2.7 million tons in 1997 and represented $4.3 billion. In 2002 these numbers were 2.5 million tons and $5.4 billion suggesting an increase in the value of the product, but this could be due to a different mix of chemical products in the category. Shipping distances changed from 261 miles in 1997 to 255 miles in 2002 suggesting a rather stable situation.

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SCTG 24: Plastics and Rubber

In 1997 the total amount shipped of the plastics and rubber commodity group (which includes tires) was 2.3 million tons valued at $7.7 billion dollars; its average shipping distance was 344 miles. For this group 2.14 million tons (92.8%) and $6.5 billion (84.3%) of its value were shipped in single modes, which averaged 172 miles. Almost all of the total single mode shipments were carried by truck; a total of 2.11 million tons and $6.47 billion, averaging 164 miles, were shipped by truck. Rail shipments averaged 899 miles. There was a paucity of air shipments, with 3,000 tons (0.1%) valued at $28 million (0.4%) moving an average of 735 miles per shipment. There were 90,000 tons (3.9%) and $982 million (12.7%) of these products with an average shipping distance of 543 miles shipped via multiple modes, while unknown modes accounted for 3% of the goods shipped and averaged 55 miles in shipment length.

By 2002 the shipments of this commodity group had increased to 3.78 million tons with a value of $11.1 billion. The average length of haul for this commodity was 311 miles with 232 miles being the average length of motor carrier shipments. The latter mode handled 91.9% of the tonnage and 92.8% of the value of these shipments. Additional traffic moved by rail and air, as well as by multiple modes.

Shipments of plastics and rubber to Indiana destinations were fairly stable for the two years examined here. The value of these increased from $9.6 billion to $9.75 billion and the tonnages changed from 3.7 million tons to 3.8 million tons. The average length of shipments was 308 miles suggesting mostly out-of-state origins. The 2002 distance value was 376 miles.

SCTG 25: Logs and Other Wood in the Rough

Total tonnages and shipment lengths are not available for Indiana shipments even though these were valued at $101 million. Most of these shipments (in value at least) were by single mode trips (98.9%) with trucks accounting for $94 million (93.6%) of shipments. There were19,000 tons (4.3%) of shipments with a value of $5 million (5.3%) that moved an average of 878 miles per shipment by rail. There are no further data available for 1997.

The sector appears in the 2002 *CFS*, but except for some shipping distances there are no other data, i.e., there are no data for tonnages, value, or mode use for Indiana, due to the data collected being statistically unreliable.

The shipment of logs and other wood to Indiana destinations is not very significant and the comparative values for shipments are not available. It seems relatively stable based on available information.

SCTG 26: Wood Products

Over 3.2 million tons of wood products, worth $2.9 billion, originated in Indiana and were shipped an average of 242 miles in 1997. Of these totals 97% of the tonnage and 95% of the value traveled by single modes an average distance of 179 miles. Trucks dominated the modal choice; 91% of the value ($2.66 billion) and 94% of the tonnage (3 million tons) moved an average distance of 173 miles by that mode. Rail accounted for 98,000 tons (3% of the total tonnage) and $62 million (2.1% of the value) with those shipments averaging 1,442 miles. There were some air shipments of products and these averaged 935 miles per shipment. A small amount (22,000 tons and $83 million in value) averaged 731 miles per shipment via multiple shipment modes.

For 2002 both tonnages and values were higher: tonnages were 6.34 million tons and value was at $3.88 billion. Motor carrier shipments averaged 106 miles and carried 97.1% of the tonnage. A small amount of traffic moves by the multiple modes of rail and truck.

Shipment of wood products to Indiana destinations is significant with values in the range of $3.5 billion in 1997 and $4.0 billion in 2002. Tonnages for these years were 5.1 million tons and 7.0 million tons, respectively. The average shipping distance of 160 miles suggests a significant amount of out-of-state flow to Indiana destinations. This distance was 162 miles in 2002 suggesting once again a stable situation.

SCTG 27: Pulp, Newsprint, Paper, and Paperboard

A total of 1.36 million tons of this paper area, valued at $1.11 billion was shipped from Indiana origins an average of 529 miles in 1997. About 93% of the value ($1.03 billion) and tonnage (1.27 million tons) averaged 81 miles per shipment on single modes in Indiana. Also, 1.22 million tons (89%) and $977 million (88%) averaged 78 miles per shipment on truck modes. A small proportion of traffic moved by rail; this was 3.7% of the tonnage (51,000 tons) and $55 million (5%) of the value and it averaged 499 miles per shipment. Air shipments averaged 1,337 miles traveled, while multi-modal shipments (4,000 tons, 0.3% and $62 million, 5.5%) moved 870 miles per shipment.

Data from the 2002 *CFS* are withheld in most cases due to their unreliable nature, statistically. We only know that these products moved by truck, rail, and air, but more detailed data for the state is not available.

Shipments of pulp, newsprint and other items in this group to Indiana destinations represented $2.3 billion in 1997 and $2.3 billion as well in 2002. The tonnages for these two years were 3.3 million tons compared to the later value of 3.3 million tons. A fairly stable situation, but the average distances shipped increased from 164 miles to 258 miles.

SCTG 28: Paper or Paperboard Articles

Total tonnage of paper and paperboard articles was 1.55 million tons, valued at $2 billion, with an average shipment length of 253 miles in 1997. Of the tonnage 97% with a value of $1.89 billion) was transported on single modes an average of 117 miles per shipment. The vast majority of this group (96% of tons and 92% of the value) was shipped by truck an average distance of 111 miles. Undisclosed amounts of rail shipments averaged 2,442 miles and air shipments 665 miles. Just 7,000 tons (0.5%), valued at $39 million (2%) were shipped an average of 736 miles by multiple modes.

In 2002 the value of shipments increased to approximately $2.9 billion. Tonnages were withheld, but we do know that motor carriers accounted for 95.9% of the value transported. Additional traffic was moved by rail, air and multiple modes.

Shipments of paper and paperboard products to Indiana destinations increased slightly from $2.4 billion to $2.9 billion. Tonnage values were suppressed for 2002, but the value for 1997 was 1.5 million tons. Even the length of these shipments was rather stable at 168 and 142 miles.

SCTG 29: Printed Products

There were 2.53 million tons of printed products with a value of $10.9 billion dollars that originated in Indiana in 1997; these averaged 601 miles per shipment. Of this total 2.35 million tons (93%) valued at $9 billion (83%) was transported by single modes an average of 590 miles. Motor carriers transported 92% (2.33 million tons) of this category valued at $8.47 billion (77.7%) an average of 377 miles per shipment. Undisclosed amounts of air shipments averaged 1,263 miles. There were 4.7% (119,000 tons) and $1.36 billion (12.5%) shipped 651 miles by multiple modes, and 4.5% of the value ($494 million), shipped by unknown modes.

For 2002 originating flows dropped to 1.02 million tons valued at $3.2 billion. Of this amount, 91.4% moved by truck, a share similar to 1997, but with substantially less tons than the former year. Average shipping distances overall were 717 miles and for motor carriers 308 miles.

Shipments of printed products to Indiana dropped in value and tonnage between 1997 and 2002. The value for the former was $6.4 billion and this had dropped to $3.2 billion in 2002. The tonnages were 2.2 million in 1997 and 1 billion in 2002. It is difficult to assess whether this

may be due to a difference in the manner in which these shipments were identified. The average length of these shipments was 358 miles in 1997 and 554 in 2002 suggesting a distribution of national origins.

SCTG 30: Textiles, Leather, and Articles of Textiles or Leather

SCTG 30 includes all of the goods in the title above, which includes textiles, yarns, carpets, luggage, footwear and some clothing. For this group 329,000 tons worth $6.2 billion originated in Indiana, and averaged 701 miles per shipment. Of the total 251,000 tons (76%) and $3.3 billion based on value (53%) moved as single mode shipments an average of 393 miles. Almost all of this was exclusively by truck, with an average distance of 373 miles per shipment. Undisclosed amounts of rail shipments averaged 1,119 miles, with air shipments averaging 699 miles. Multimodal shipments represented 68,000 tons (21%) and $2.75 billion (44%) of shipments averaging 723 miles, all of which appears to be by mail.

Tonnages increased for total traffic produced for this group in 2002. Total tons increased to 649,000 tons valued at $10.96 billion. Trucks carried 81.2% of this traffic and air and multiple modes (parcel, USPS, and courier) were responsible for the remainder. Average length of shipments for trucks was 187 miles, for air 1,790 miles and for parcel and related traffic it was 875 miles.

Shipments with destinations in Indiana were valued at $5.5 billion in 1997 and these increased to $8.9 billion in 2002. The tonnages involved also increased from 422,000 tons to 664,000 tons between these two years. The average length of shipments of 577 miles suggests that this is an industry moving goods from import locations. By 2002 this distance had increased to 595 miles.

SCTG 31: Nonmetallic Mineral Products

There were 19 million tons of nonmetallic mineral products (e.g., cements, glass products, and ceramic products) worth $3.5 billion dollars that originated in Indiana in 1997. It averaged 500 miles per shipment. There were18.9 million tons (99.6%) and $3.3 billion dollars (94%) of this group that moved by single modes, with an average shipment distance of 144 miles. Motor carriers transported 94.4% of the tonnage (18 million tons) and 92.8% of the value ($3.26 billion) an average of 141 miles. Shipments by rail represented 5.2% of the tonnage (990,000 tons) and $50 million of the value (1.4%). Undisclosed amounts of air shipments averaged 1,045 miles. There were also 58,000 tons (0.3%) valued at $172 million dollars (4.9%) transported by multiple modes with an average travel distance of 809 miles.

For 2002 tonnages had increased to nearly 32 million tons valued at $3.4 billion. Of these shipments 98% of the tons were handled by trucks, 1.8% by rail, and the remainder moved by air or multiple modes.

Non-metallic mineral shipments with destinations in Indiana increased from 17.4 million tons in 1997 to 30.8 million tons in 2002. In spite of this significant increase in tonnage the value of these shipments only increased from $3.0 billion to $3.1 billion. The average length of shipments was 243 miles in 1997 and 206 miles in 2002.

SCTG 32: Base Metal in Primary or Semi-finished Forms and in Finished Basic Shapes

There were 39 million tons transported from Indiana origins in 1997. This commodity group, which includes iron, steel, copper, and aluminum forms, was valued at $24 billion, and was shipped an average of 275 miles. Approximately 92% (35.8 million tons) of the commodity valued at $22.4 billion (93.7%) were shipped on single modes that averaged 227 miles. Of these shipments 65.5% or 25.5 million tons woth $17.5 billion dollars (73.2%) were by truck and had an average shipment length of 203 miles per shipment. Rail hauled 10.3 million tons (26.3%) worth $4.8 billion (20.2%) an average of 626 miles. An undisclosed amount of air shipments moved an average of 1,271 miles per shipment, while multiple modes averaged 690 miles per shipment.

By 2002 shipments had increased to 42.5 million tons, but the value had dropped to $23.3 billion. These commodities moved an average of 232 miles. Of this total tonnage, 69% moved by truck, 22.3% moved by rail, with air, water, and multiple modes picking up the remainder. Shipments by truck averaged 191 miles, by rail 692 miles, by water 1,360 miles, and by air 784 miles.

Base metal forms and shapes shipments to Indiana decreased in value between 1997 and 2002; these values were $15.2 billion in the earlier year and $13 billion in the latter year. Tonnages also decreased. It dropped from 22.6 million tons to 19 million tons. Shipment length was 225 miles in 1997 and dropped to 202 miles in 2002.

SCTG 33: Articles of Base Metal

Three million tons of base metal articles worth $6.6 billion moved an average shipment length of 226 miles in 1997. This commodity group includes everything from nuts and bolts to pipes and hand tools. Approximately 96% of the tonnage, valued at $6 billion (90.4%) was shipped by single modes an average of 230 miles, and 94% of the tonnage (2.9 million tons) with a value of nearly $6 billion (89.4%) was shipped an average of 217 miles by truck. Non-disclosed rail tonnages moved an average of 1,773 miles per shipment, and air modes averaged 988 miles per shipment. Multiple modes accounted for only 23,000 tons (0.7%), but $437 million (6.6%) of shipments and averaged 319 miles per shipment. Truck and rail mode shipments averaged 2,135 miles.

By 2002 this group had increased only slightly to 3.1 million tons valued at $8.3 billion.

Of the total tonnage, 91.4% moved by rail, with air, rail, and multiple modes picking up the remainder. Average shipment length by truck was 384 miles per shipment. Shipments by rail were shorter than in 1997 while shipments by air had increased in length.

Base metal articles with destinations in Indiana increased slightly in value and weight between the two census years. The shipments increased from 3.2 million tons to 3.5 million tons and the values increased from $6.4 billion to $7 billion. Shipping distances were high with an average of 280 miles in 1997 increasing to 341 miles in 2002.

SCTG 34: Machinery

This commodity group includes all types of machinery ranging from refrigerating equipment and air conditioners, to dishwashers and power tools, and boilers as well as turbines. There were 2.5 million tons of these goods shipped in 1997 with a value of $17.5 billion; average shipping distance was 461 miles per shipment. Among those, 2.25 million tons (88.6%) with a value of $14.25 billion (81.5%) were transported via single modes, with an average shipping distance of 383 miles. Trucks shipped 88.1% of the tonnage (2.23 million tons) and $14 billion (80%) of the value on average 151 miles. Undisclosed rail shipments averaged 1,331 miles, and multiple modes averaged 585 miles in shipment length. There were 7,000 tons (worth $245 million) shipped by air freight an average of 1,475 miles.

Shipments of this commodity group had increased to 3.5 million tons, valued at $30 billion by 2002. Of this tonnage 84.2% moved by truck, 2.1% by rail, and 3.6% moved by multiple modes. The length of shipments increased for trucks to 249 miles, and for rail it dropped to 829 miles.

Shipments of machinery ending in Indiana increased in value from $14 billion to $18 billion and the tonnages changed from 2 million tons to 2.1 million tons. Shipping distances were about 208 miles in 1997 and 264 miles in 2002 suggesting a Midwest origin for most of these Indiana bound shipments.

SCTG 35: Electronic and other Electrical Equipment and Components and Office Equipment

Two million tons of various types of electronics and electronic equipment worth $18 billion were transported an average of 268 miles per shipment in 1997. Of this 90.7% (1.9 million tons) with a value of $14 billion (78.7%) were transported an average of 150 miles by single modes. Most of transport was by truck, with 1.8 million tons (88.4%) valued at $13 billion (73%) moving an average distance of 129 miles per shipment. Another 30,000 tons (1.5%) were shipped by rail an average of 1,144 miles, while 14,000 tons (0.8%) worth $837 million (4.7%) were shipped on average 1,197 miles by air. Multiple mode shipments accounted for 7.5% (157,000 tons) valued at $3.3 billion (18.2%) with an average shipment length of 406

miles.

Shipment tonnages had dropped to 1.6 million tons as its worth increased to $23.2 billion in 2002. Of the various modes, trucks were dominant with 79.1% of the tonnage and 53.2% of the value. Multiple modes were also important with parcel, USPS and courier moving 10.1% of the tonnage and truck and rail moving 9.2% of tonnage.

Electronics and electrical equipment shipments that had a destination in Indiana increased from 1.564 million tons in 1997 to 1.569 million tons in 2002, practically no change at all. On the other hand the value of these shipments increased substantially from $15.8 billion to $24.8 billion. Shipment lengths decreased from 347 miles to 265 miles suggesting more local origins for these goods in the Midwest.

SCTG 36: Motorized and Other Vehicles

Indiana shipped nearly 8.4 millions tons of motorized and other vehicles valued at $35 billion an average of 278 miles per shipment in 1997. This commodity group includes road-based motor vehicles ranging from bicycles to tractors, including all cars, trucks, and even combat vehicles. Most of the tonnage (85%) and the value (73%) were shipped by single modes an average of 173 miles. Trucks accounted for 6.1 million tons (73%) and $24.2 billion (73.3%) of shipments. These moved an average of 129 miles. Rail shipped 12% of the tonnage but 3.6% of the total value. These moved 603 miles per shipment. Multiple mode shipments occurred for 4% of the tonnage but nearly 10% of the value, while 11% of the tonnage and 17% of the value were shipped by unknown modes an average of 62 miles.

Traffic production increased for this sector in 2002 with 12.2 million tons valued at $56.6 billion. Trucks moved the majority of this tonnage (73.8%) and value (67.1%), but rail was also significant with 11.9% of the tonnage and 5.9% of the value. Average shipment distances for these two modes were 207 and 604 miles, respectively. Multiple modes were important in 4.1% of the moves by tonnage and 9.6% of the moves by value. Truck and rail multiple moves were the most significant of these.

Motor vehicles and the parts for these that were shipped to destinations in Indiana represented $24.6 billion in value in 1997 and $38.2 billion in 2002. The tonnages changed from 4.8 million tons to 6.8 million tons. The length of shipments changed from 162 miles to 186 miles, which is not a significant change.

SCTG 37: Transportation Equipment

This commodity group includes aircraft, spacecraft, and locomotives, as well as parts for these. There was $2.35 billion in transport equipment shipped from Indiana an average of 528 miles in 1997. Single modes handled 62.8% of that value, shipments averaging 528 miles, while

the remaining 37.2% was handled by multiple modes and averaged 954 miles per shipment. No data are available on tonnages for 1997.

Data were not available on this group for Indiana in 2002 due to small sample size and statistical unreliability.

Shipments into Indiana are available and these increased in value from $734 million for 1997 to $2 billion in 2002. Tonnage in 1997 was 98,000 tons, but the 2002 value was not reported. The average length of these shipments changed from 503 miles to 724 miles suggesting some of these may be coming from port areas.

SCTG 38: Precision Instruments and Apparatus

The precision instruments included in this commodity group include cameras, photocopy machines, X-ray machines, and scientific measuring equipment. Only 62,000 tons of these instruments accounted for $3.1 billion in freight flow originating in Indiana in 1997. These were shipped an average of 692 miles per shipment. A third of the value traveled 338 miles by single mode, while nearly $2 billion (61.6%) weighing 10,000 tons (16.8%) traveled 780 miles in multiple mode shipments. An undisclosed amount of air shipments averaged 1,007 miles per shipment.

By 2002 the tonnage had dropped to 34,000 tons, but the value had increased to $4.1 billion. Average shipment distance remained about the same at 741 miles. Approximately 95% of the shipments were by motor carrier or parcel, USPS, or courier.

Precision instruments shipped to Indiana destinations were down in terms of tonnage dropping from 123,000 tons to 107,000 tons between 1997 and 2002, but the value of these shipment increased from $3.2 billion to $7.2 billion. Shipping distances increased from 627 miles to 938 miles suggesting shipments from more distant locations, possibly port areas.

SCTG 39: Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs

The title of this group is fairly descriptive of its content. In 1997, $3.8 billion of furniture commodities weighing 676,000 tons originated in Indiana and were transported an average of 409 miles per shipment. Approximately 87% of this tonnage and 92% of this value were in single mode shipments averaging 366 miles. Trucks were used for most of this transport, with $3.5 billion and 586,000 tons (91.8% and 86.7%, respectively) being transported 352 miles per shipment. Multiple mode shipments accounted for 5% of the value and 2.5% of the tonnage, averaging 869 miles in shipment length.

Shipped tonnage remained nearly the same in 2002 at 660,000 tons. The value of these

increased to $4.6 billion. Motor carriers increased their modal share to 98.6% of the tonnage and 97.4% of the value in 2002. The little remaining tonnage moved by rail, air, and multiple modes.

Shipments of these goods to Indiana destinations increased from about $2 billion to $3.4 billion. Tonnages increased from 247 miles to 425 miles, which may reflect a further decrease in the furniture industry within Indiana. Tonnages increased from 481,000 tons to nearly 746,000 tons.

SCTG 40: Miscellaneous Manufactured Products

This group of products that doesn't seem to fit anyplace else includes arms, munitions, toys, sporting equipment, clocks and prefabricated buildings. These products accounted for 3.2 million tons worth $12.8 billion and averaged 522 miles per shipment. Of the total tonnage 95% and 83% of the value were transported 345 miles in single mode shipments. Trucks accounted for 2.85 million tons (89.5%) and $9.9 billion (76.8%) of shipments, averaging 324 miles per load. An undisclosed amount of rail shipments averaged 952 miles per shipment, while multiple mode shipments averaging 612 miles accounted for only 2% of the tonnage but 14% ($1.8 billion) of the value.

In 2002 the tonnage was a little less, slightly more than 2.8 million tons, valued at $12.6 billion. Of these totals, 95.5% of the tons and 91.7% of the value was transported by truck. The remainder of this traffic was carried by multiple modes. Average shipping distances were 387 miles by truck and 667 miles by multiple modes.

Shipments of this catch-all group with destinations in Indiana decreased from 2.4 million tons to 1.4 million tons; the value of shipments did not change. The length of the shipments increased slightly from 637 mile to 706 miles.

SCTG 41: Waste and Scrap

Waste and scrap includes slag, ash, sawdust and paper. In 1997 there were 8.4 million tons of this valued at $1.5 billion that originated in Indiana. Of this amount 42.5% of the tonnage moved by truck and 57.5% moved by rail. In terms of value this situation was reversed with trucks handling 61.8% and rail handling 38.1%. Average shipping distances for the two modes were 117 miles for trucks and 130 miles for rail.

This traffic increased in 2002 to 9.9 million tons, but its value remained the same at $1.5 billion. Trucks increased their modal share handling 51.6% of the tonnage and 72.1% of the value transported. Rail continued as the second mode in this area with 38.9% of the tonnage and 21.5% of the value shipped. Average shipping distances were about 120 miles by the two modes combined.

Shipments of waste and scrap destined for Indiana locations increased in value from $2.5 billion to $4.7 billion. Tonnage in 1997 was 10.5 million tons, but not reported in 2002. The average shipping distance dropped from 134 miles to 70 miles.

SCTG 43: Mixed Freight

In 1997 mixed freight was moved almost entirely by motor carriers. It represented 478,000 tons by weight and $1.4 billion in terms of value. They handled 99.2% of the tonnage and 98.0% of the value of these shipments. Shipments by parcel, USPS, and courier picked up most of the remainder. The Truck moves were 66 miles in length on the average and the parcel moves were 246 miles in length.

In 2002 the tonnage had increased to 8.7 million tons, 18 times its value in 1997. Value had increased to $29.4 billion, 21 times its value in 1997. Most of this continued to be moved by truck transport which accounted for 98.7% of the tonnage and 97.1% of the value. Once again parcel, USPS and courier accounted for most of the remainder. Shipments averaged 468 miles in length for this latter group and 78 miles for truck.

Shipments of mixed freight having a destination in Indiana in 1997 represented 1.5 million tons and $2.6 billion. In 2002 these were 7.3 million tons and $20 billion. This is a phenomenal increase by any standard. The length of these shipments dropped from 238 to 208 miles.

Intermodal Facilities in Indiana

The Ports

Indiana has a total of six maritime ports; two along the Ohio River which eventually leads to the Gulf of Mexico by way of the Inland Waterway System, and four on Lake Michigan which gives access not only to the Inland Waterway System, but also to the rest of the Great Lakes, as well as to the Atlantic Ocean by way of the St. Lawrence Seaway. Only three of these ports are intermodal facilities, and these will be examined further in this section. Maritime ports are vital to Indiana's economy in that they are a major mode of transportation for heavy industrial goods, agricultural products, and stone and other minerals.

The **Clark Maritime Center** in Jeffersonville, Indiana is located on the north shore of the Ohio River across from Louisville, Kentucky. Built in 1985, it is reportedly the fastest growing port on the Inland Waterway System.

This port offers year round access to the Gulf of Mexico via the Inland Waterway System, service for many different general cargo products, and on-site storage for up to 1.6 million bushels of grain. This port is also a site of intermodal transportation with direct linkages

to rail and highways, and two airports within fifteen miles. Additionally, on-site switching services for cargo on boats and rail are offered here.

The Clark Maritime Center has 962-acres with 20 tenants, 3,200 linear feet of riverfront access, and is classified as a Foreign Trade Zone. The goods most often handled at this port are steel, iron, grain, fertilizer, salt, and asphalt.

The **Southwind Maritime** Center in Mount Vernon, Indiana is located on the north shore of the Ohio River fifteen miles west of Evansville, Indiana. It is a top port in throughput tonnage, handling an average of more than 2 million tons of cargo each year. This port also offers year round access to the Gulf of Mexico via the Inland Waterway System, including the Mississippi and Tennessee-Tombigbee Waterway Systems.

This port offers storage facilities for general cargo, bulk commodities, and specialized agricultural commodities including a 4.75 million bushel capacity grain elevator, three million-gallon liquid fertilizer storage tanks, and a covered storage facility with the capacity to hold up to 85,000 tons of dry fertilizer. The Southwind Maritime Center also offers advanced material handling equipment such as a 60-ton 760-foot bridge overhead crane, container handling equipment, and a 50-inch 5-ton electromagnet. Additionally, stevedoring, handling, tug, towing, fleeting, and switching services are offered on site.

Finally, the Southwind Maritime Center also has 745 acres with eight tenants, 7,500 feet of riverfront access, and is classified as a Foreign Trade Zone. The goods most often handled at this port are grain, soybean products, coal, fertilizer, cement, and minerals.

Burns Harbor in Portage, Indiana is located on the south shore of Lake Michigan, just 18 nautical miles from Chicago. This port has a 27-foot draft with a special design that allows ships to dock and turn around at the port, and it is capable of simultaneously berthing up to ten ships.

Access to the Gulf of Mexico via the Inland Waterway System and to the Atlantic Ocean via the St. Lawrence Seaway is offered at Burns Harbor. This port also offers twelve modern shipping berths, as well as services for cargo and ships. These services include the capability of handling heavy-lift project cargo, metals, grain, chemicals, fertilizers, and coal. Tenant ship services include tug, barge, fleeting, railroad switching, waste disposal, sanitation, security, and fire protection. Burns Harbor is capable of handling Great Lakes bulk carriers up to 1000 feet in length, as well as saltwater vessels that are capable of transiting the locks on the Great Lakes and St. Lawrence Seaway system.

This port has 530 spaces with more than 30 tenants, and is classified as a Foreign Trade Zone. It is also an intermodal transportation site with service by the Indiana Harbor Belt Railroad, and close proximity to several interstate highways and airports. The goods most

commonly handled at Burns Harbor are iron, steel, grain, chemicals, fertilizers, limestone, coal, and heavy-lift project cargo.

Intermodal Rail Facilities

Intermodal rail facilities seem to be very efficient, but there is significant ambiguity in identifying their use and effectiveness due to unclear data. It has been speculated that more of these sites do not exist in Indiana because the majority of the cargo traveling through Indiana originates or terminates in the adjacent states of Michigan, Ohio, Kentucky, and Illinois. This means that traditional intermodal rail facilities are put at a service and cost disadvantage because of the short line-haul distances to adjacent states. However, new bimodal technologies have presented a low-cost structure, and certain Indiana intermodal rail facilities are reaping the benefits.

The Clark Maritime Center in Jeffersonville and Burns Harbor in Portage, as mentioned above, are both sites of intermodal transportation which are capable of handling cargo sent by boat, rail, and truck. Both of these facilities are near airports with cargo handling and shipping capabilities as well.

The Clark Maritime Center provides rail service through the Louisville Indiana Railroad Co. and CSX with interchanges to several other major rail lines, including Canadian Pacific, Norfolk Southern, CN, KCS, BNSF, and Union Pacific. This facility also has an intraport short line capable of allowing on-site switching through M.G. Rail.

Burns Harbor provides rail service through the Indiana Harbor Belt Railroad, Norfolk Southern, CSX, and South Shore Railroad. Indiana Harbor Belt Railroad is the largest switch carrier in the nation. At Burns Harbor, Indiana Harbor Belt Railroad owns 54 miles of main track, as well as 266 miles of yard and siding track.

Several other intermodal rail facilities exist in Indiana which have the capability of handling and transferring cargo between rail and truck only. These sites are the Conrail's Avon Yard west of Indianapolis, the Howell Yard in Evansville, Norfolk Southern Triple Crown Facility in Fort Wayne, the General Motors Roanoke Facility near Fort Wayne, and the Toledo, Peoria and Western Hoosier Lift at Remington. For the most part, these facilities handle containerized bulk cargo. At the GM Roanoke Facility and the Hoosier Lift Facility, intermodal services are generally carried out by contracted third-party companies, such as the Hub Group, Inc.

The intermodal rail facility at **Avon Yard** west of Indianapolis occupies 25 acres of land with room for possible expansion. It has two eastbound and two westbound intermodal trains. Eastbound service dominates, going to Boston and Springfield, MA; Philadelphia, PA; and Syracuse, NY. Westbound service to East St. Louis, however, is minimal. This site offers a total

of ten origin-destination pairs, including those just mentioned as well as four in Canada. Avon Yard performed 24,000 lifts in 2001 with its main customer being United Parcel Service sending significant volumes to its Worcester, MA and Little Ferry, NJ sort centers. The equipment split is even at 50 percent containers and 50 percent trailers.

The **Howell Yard** intermodal rail facility in Evansville occupies 17 acres of land with no room available for expansion. It has one northbound and one southbound intermodal train operating between Chicago, IL; Nashville, TN; Atlanta, GA; and Jacksonville, FL. In 2001, Howell Yard performed 23,000 lifts, and the terminal is currently operating at 75 percent capacity. Howell Yard's major inbound customer is water-rail container traffic to Toyota, Inc, and its major outbound customer is Whirlpool, Inc., to the southeast and west coast. The equipment split is 65 percent containers and 35 percent trailers. This site offers many more origin-destination pairs than the intermodal rail facility in Avon, serving a total of 39 origin-destination pairs. CSXI offers service between Evansville and Bedford Park in Chicago, the largest rail hub in the United States, with a line haul of under 300 miles, and no direct Interstate Highway alternative.

The **Norfolk Southern Triple Crown Facility** in Fort Wayne uses a new carless, bimodal trailer technology called RoadRailer®. RoadRailer® combines truck and rail line haul movement. The Triple Crown Service has a fleet that consists of 5,500 trailers that are all 53 feet long and 102 inches wide with slack-free coupling for movement. Typical train size is 73 units, but the Federal Railroad Administration has authorized the operation of trains of up to 155 units. There are a total of eleven origin-destination pairs from Fort Wayne, including sites in Canada and Mexico. The principal commodity market is automotive parts, and the highest to Ft. Wayne is to and from Atlanta, GA; Kansas City, MO; and Harrisburg, PA. Other commodities served by TCS include appliances, paper, and food.

The Toledo, Peoria and Western Railway operates the **Hoosier Lift** intermodal rail facility in Remington, Indiana. In 2001, Hoosier Lift performed only 5,000 lifts with an annual capacity of 35,000 lifts. This intermodal rail facility is underused mostly because it competes with Chicago's 26 rail hubs.

Intermodal rail service expansion in Indiana is possible in the future if the facilities were to use technologies such as RoadRailer® by Norfolk Southern's Triple Crown Services Inc. or *Expressway* by Canadian Pacific which have a significantly higher cost and service advantage than conventional intermodal rail services. It remains to be seen whether Indiana will upgrade its intermodal rail facilities to accommodate these new services.

Air Freight Facilities

Indianapolis International Airport, Indianapolis, Indiana

Indianapolis International Airport was built in 1931. Currently, it covers 7,700 acres and has one terminal with 33 gates. It is owned by the Indianapolis Airport Authority and managed by BAA, the world's largest airport management company. Indianapolis International Airport is the largest privately operated airport in the United States. In 2003, the airport ranked 8th in U.S. all-cargo landed weight, handling over 2.2 million tons of cargo, and ranked 88th in U.S. freight gateway handling of international merchandise valued over $1 billion, trading over $2.6 million in freight. A major user of this airport is FedEx, which has its own terminals on the site.

Fort Wayne International Airport, Ft. Wayne, Indiana

Baer Field Air Base was built in Fort Wayne in 1941 and was used as a World War II military base. After having its name changed several times, in 1991, the Airport Authority changed its name to Fort Wayne International Airport. It is currently owned and operated by the Fort Wayne-Allen County Airport Authority. Fort Wayne International Airport is considered a medium sized airport, and between 2001 and 2003, it handled an average of 360 million tons of cargo. The Air Trade Center at Fort Wayne International Airport offers 450 acres of industrial space. It also has ten T-hangars available to small single or light twin engine planes. In 2003, this airport was ranked 36th in the US in all-cargo landed weight, handling over 374,000 tons of cargo.

South Bend Regional Airport, South Bend, Indiana

South Bend Regional Airport was built in 1929. It is currently operated by the St. Joseph County Airport Authority. In 2003, South Bend Regional Airport handled 7,431 tons of cargo. The majority of the freight traffic handled at the airport is from FedEx, Airborne Express and UPS. Currently, South Bend Regional Airport is working to complete a project to lengthen its runways to allow for increased commercial traffic. It recently acquired 250 acres for this expansion project, which will be finished by the end of 2006.

O'Hare International Airport, Chicago, Illinois

Originally, O'Hare International Airport was a military base named Orchard Field. In 1946, the Chicago Municipal Airport (Midway) bought Orchard Field from the U.S. government and renamed it in honor of naval pilot Butch O'Hare who was killed in World War II. O'Hare Airport was used predominantly by the military until the mid 1950's when it first opened its doors to domestic commercial flights. Today, O'Hare International Airport covers 7,700 acres, has four terminals with 178 gates and 7 runways. It is operated by the Chicago City Department of Aviation. In 2004, Chicago O'Hare International Airport handled nearly 457,000 tons of

domestic freight and over 957,000 tons of international freight, totaling over 1.4 million tons of freight. Goods are shipped to and from more than 140 domestic and 30 international non-stop destinations, serviced by 22 airlines. O'Hare is an important hub for Delta and American Airlines, as well as shipping companies. The airport also has a large capacity for storing cargo. The Southwest Cargo Facility dubbed "Cargo City" covers 240 acres and offers 1.2 million square feet of enclosed storage space. The O'Hare Express Center was the first private development on O'Hare property; it covers 50.2 acres and includes five buildings offering a total of 850,000 square feet of storage space. O'Hare International Airport ranked 7th in 2003 for all-cargo landed weight, handling over 2.35 million tons of cargo, making it the seventh busiest cargo moving airport in the United States.

Cincinnati/Northern Kentucky International Airport in Covington, Ohio

Cincinnati/Northern Kentucky International Airport was built in 1943 as an alternative to Lunken Airfield which was prone to flooding. Currently, it covers 7000 acres with three concourses and three terminals, totaling over 100 different flight gates. It is operated by the Kenton County Airport Board. Delta and Comair are the two main passenger airlines servicing the airport. Both of these airlines have over 50 gates each, making Cincinnati/Northern Kentucky International Airport the largest facility of its kind in the world. Not only does this airport handle large amounts of passengers, but it also handles large amounts of freight: over 2 billion tons 2003. In 1984, DHL opened its package-sorting hub at Cincinnati/Northern Kentucky International Airport. Following a series of expansions, DHL opened a new hub on the airfield in 2003 that covers 150 acres. This allows DHL to handle up to two million pounds of cargo nightly with enough ramp space to park more than 60 aircraft. The Bureau of Transportation Statistics ranked Cincinnati/Northern Kentucky International Airport 16th in U.S. all-cargo landed weight, handling nearly 1.1 million tons of cargo in 2003.

Cincinnati Municipal Airport in Cincinnati, Ohio

Originally named Lunken Airfield, Cincinnati Municipal Airport was built in 1925. It currently covers 2,000 acres in Cincinnati near the Little Miami River, and has been prone to flooding in the past. It is owned by the City of Cincinnati and is operated by the Aviation Division of the Department of Transportation and Engineering in conjunction with PB Aviation. Freight traffic to this airport is light, as it serves mostly as a general and corporate aviation facility and as a reliever airport to the Cincinnati/Northern Kentucky International Airport. In 2002, Cincinnati Municipal Airport handled over 500 tons of freight. This freight is primarily comprised of cancelled checks and small packages, flown by AirNet and OnFlight Express. Cincinnati Municipal Airport also offers aircraft engine service and repair, aircraft interior services, aircraft sales, leasing, charter and courier services. The airport also has plans for future expansion to accommodate more passenger and cargo traffic.

Louisville International Airport, Louisville, Kentucky

Standiford Field, a World War II air base, was built in 1941. In 1947 it was sold to its current operator, the Louisville Air Board, and was immediately made into a commercial passenger airport called Louisville Airport. United Parcel Service, the largest private employer in Kentucky, makes up the majority of the airport's cargo. Louisville International Airport has many professional facilities and amenities to handle massive amounts of specialized cargo, including mechanical handling, heated storage facilities, the ability to handle hazardous and dangerous goods. The airport also boasts an Express Courier Centre, and has a limited amount of parking space for large transient aircraft. The Airport Authority began plans for expansion in 1988, including new east and west parallel runways, a new Kentucky Air National Guard Base, a new United States Postal Service air mail facility, new corporate hangars, a new fixed-based operator, a four-level parking garage, and a new control tower. In 2003, Louisville International Airport ranked third in all-cargo landed weight, handling over 4.1 million tons of cargo; four times the amount of cargo handled by Indianapolis International Airport, the country's 8th busiest cargo handling airport.

Intermodal Flows

We have not focused on intermodal flows in the report that follows. It may be a significant proportion of total flows in the United States, but it is not that significant when it comes to Indiana. Let us look at this briefly here.

According to the 1997 Commodity Flow Survey (*CFS*) the shipments leaving Indiana that moved by multiple modes represented 10.7% of the value of all goods. This makes it sound significant, but when we look at the tonnages involved it is about 2.2%. This includes all parcel, courier, and postal moves, truck/rail moves, truck/water moves, rail/water moves, and unknown multiple modes. For the 2.2% of multiple mode moves we know that 0.2% is parcel moves, but the samples drawn of other modal pairs were so small that the data were viewed as unreliable. If we move to flows of specific commodities, there is nothing reported in most cases.

As for 1997 shipments arriving in Indiana we know that 10.9% of the value of the shipments is via multiple modes, but only 6.3% of the tonnage. More specifically the truck and rail moves represent 1.0% of the value and an undisclosed amount of the tonnage, probably something around 0.5% of the value.

In the 2002 *CFS* shipments by multiple modes represented a total of 11.1% of the value of Indiana shipments, but 8.6% of this value was for parcel and similar moves. Truck and rail flows represented 2.2% of the value. The tonnage moving by multiple modes dropped in 2002 from its 2.2% in 1997 to 1.6% of the tonnage in 2002.

Again the 2002 picture is actually less clear. We know 11% of the value of the shipments received arrives by multiple modes, and about 5.3% of the tonnage. The sampling of this area is undoubtedly something that could be improved upon, because the value of the intermodal rail/truck moves is 0.1% of the total. The tonnages, actual or percentage, are not revealed and probably come out significantly less than that.

In effect, we have not looked at the intermodal rail/truck flows originating in Indiana because the sector seems of minor importance based on the data available from the 1997 and 2002 *CFS*. Of course there is always the possibility that the sample used by the *CFS* is not picking up the volumes correctly.

There may be anecdotal evidence that a significant amount of intermodal rail/truck traffic arrives in Indiana. Even if the *CFS* is significantly understating the value and tonnages, we have no way to improve this. The *CFS* is the best data source available. If we were able to work with the general multipliers developed here and discussed later, we would not have sufficient data to work with once this was distributed across 41 different commodity groups.

We suspect that we are picking up some of the intermodal flows in the form of simply rail traffic, we have no way of knowing this for sure and as a result this type of flow has not been treated any differently than rail flows here.

Exports and Imports Related to Freight Flows

Although it is beyond the scope of the present study and clearly beyond the data published by the Commodity Flow Survey (*CFS*) on which this study is based, there is a natural interest in the extent to which exports and imports play a role in the flow of goods to, from, and within the state of Indiana. The way in which such flows are treated in the *CFS*, is worth noting here.

Freight that is being shipped to a port or other site for export appears in the *CFS* as a flow from the state of origin to the state of export. Therefore export flows leaving Indiana by rail and destined for the port of Norfolk, Virginia, and further transshipment to a nation in Europe are treated as flows from Indiana to Virginia. Flows leaving by aircraft from Indianapolis that are destined for a nation in Africa are treated as flows beginning and ending in the state of Indiana. In effect, this is an internal or intrastate shipment. Likewise a container of merchandise from Beijing arriving at the port of Los Angeles-Long Beach in California prior to a West Coast warehouse, followed by its shipment by motor carrier to Indianapolis is treated as a flow from California to Indiana. All of this is rather unsatisfactory if you really care about origins and destinations and Indiana's role in international trade. It is unlikely that we can satisfy all the readers of this document in this matter, but we will try to improve on the situation somewhat. The reader should bear in mind that we will be using estimates for much of what follows.

Export Flows

Of the total goods exported from the United States, Indiana was responsible for 2.4% of the value. This amounted to $21.5 billion dollars in goods in 2005 and this was a 12.4% increase over 2004. Of these exports the dominant commodities were transportation related components and pharmaceuticals and medical-related supplies. The former would most likely move by rail or truck, while the latter might very well be shipped as air freight. These two broad classes of goods accounted for more than 49% of the value of exports.

The major destinations for exports from the state of Indiana are not unexpectedly Canada (44.5%) and Mexico (12.2%) in terms of value. These shipments would be primarily surface moves and would most likely appear in the *CFS* as shipments to Michigan in the former case and shipments to Texas in the latter case.

Other export destinations that comprise the top ten destinations are the United Kingdom (7.1%), France (6.8%), Japan (3.6%), Germany (3.2%), Netherlands (2.0%) and China (1.9%). These countries along with Canada and Mexico represent more than 80% of the destinations for Indiana exports in terms of value.

The heavier exports to European destinations would most likely move from the ports of New York or Norfolk, Virginia, to Rotterdam, Bremerhaven, or Antwerp in container ships. Of course higher value goods (such as pharmaceuticals) would probably be shipped by air.

Those exports destined for Asia would most likely pass through the port of Los Angeles and Long Beach, since they handle 70% of the West Coast transpacific traffic. The other choices are Oakland and Seattle/Tacoma, but these handle only about 20% of the traffic. The receiving port on the Asian side is determined by the final destination of the exports. Hong Kong continues to be very dominant for China, Pusan for South Korea, and Kobe for Japan.

Import Flows

While the export picture is rather clear, the import picture is not. We can speak of the estimated value of goods being imported, but even this requires certain assumptions. If we assume that Indiana consumes goods as a straight proportion of its population to the total U.S. population then we can make some estimates. This is not an all an unreasonable assumption since the state is proportionally quite similar to the U.S. as a whole and it is primarily consumer goods that are being imported in many cases.

In this case the leading source of imports for Indiana would be Canada with 17.2% of the value. China is second with nearly 14.6% of the total value. This would be followed by Mexico with 10.2% of the value, Japan with 8.3%, Germany with 5%, the United Kingdom with 3.1%

and Korea with 2.6%. Let us look briefly at what is being imported from these areas to the U.S.

Our best estimate of the value of these imports (in billions of U.S. dollars) arriving in Indiana (based on 2005 data) is as follows: Canada (6.1), China (5.1), Mexico (3.6), Japan (2.9), Germany (1.8), the U.K. (1.1) and Korea (.9). The increasing dominance of China as an import source is the major change over the last decade.

For Canada the major U.S. imports are transportation equipment (26.9%), energy-related products (23.0%), forest products (9.8%), and minerals and metals (8.9%). China's picture is quite different with electronics accounting for the major share of its exports to the U.S. (35.7%). Miscellaneous products of manufacturing are the second most common import from China (19.1%), followed by textiles (11.1%) and machinery (8.8%). Mexico's leading export to the U.S. is also electronics (23.7%), followed by transportation equipment (20.3%), energy-related products (14.8%), and machinery (11.9%). Japan's exports to the U.S. are dominated by transportation equipment (45.2%), followed by electronics (22.9%), and machinery (13.5%).

Most of above imports would move by motor carrier or possibly rail. Goods coming in from Europe are not very significant in comparison to the Asian trade. The impact of the latter trade on West Coast ports is quite significant and this can impact firms in Indiana in terms of congestion delays preventing ships from being unloaded. The major Asian ports involved in shipments to the U.S. would continue to be the same as those receiving shipments.

Summary

In this chapter we have summarized the attributes and trends related to the forty-one commodity groups examined in this study using a combination of data from both the 1997 and the 2002 *Commodity Flow Survey*s. We can not examine longer term trends since the data for 1993 are not comparable with the newer classification systems.

Also summarized here are the major transportation facilities of the state of Indiana including its port facilities, airports, and intermodal facilities and terminals.

We also examined the intermodal (rail/truck) flows in Indiana commodity productions and attractions. It was noted that in terms of tonnages, in other words traffic, this represents a very small amount of the total volume of goods leaving or entering the state of Indiana. It was also noted that we have no way of improving this situation and as a result this type of flow has not been examined here specifically. Instead this portion of the shipments has been combined with rail shipments.

We closed this chapter with some discussion of the role of exports and imports originating and terminating in Indiana. We have focused primarily on goods based on their value. In the export case Indiana leads with transportation related equipment and

pharmaceutical-related products. Imports are being dominated by consumer goods from Asia.

Indiana DOT planners should carefully monitor the development of bridge tables being prepared that will enable one to translate STCC data into SCTG data. If this were available then it would be possible to work with the STCC data of the Carload Waybill Sample and treat it as SCTG data. At present such tables are crude at best and will not provide reliable estimates.

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Chapter 4

THE GENERATION OF COMMODITY TRAFFIC

As noted in Chapter 1, one of the major efforts in the analysis of commodity flows is the identification of variables that influence the production and attraction of this traffic from and to the various state and county origins and destinations. These productions and attractions are referred to collectively as traffic generation. The traffic generation phase of this project was also negatively impacted by the manner in which commodity traffic and employment within industries is now categorized. These problems are worth some discussion at the outset.

Traffic Production

Commodity traffic production, the shipments that emanate from a given area for a given industry, is obviously a function of the amount of production or manufacturing that takes place in that industry within the area of interest. It is of primary interest to determine those factors that are related to this productivity and to model this process so that estimates can be made of future traffic. The usual way of approaching this type of modeling is to relate flow production for a given commodity to employment in that particular industry for the areas of interest.

In the previous flow study commodity traffic was available for the STCC (Standard Transportation Commodity Classification) system. Employment data in that earlier study was available for the SIC (Standard Industrial Classification) system. There were clear linkages between these two systems so that one could be relatively sure that the flows and employees were for the same sectors to a large extent for any given area. The changes in classification systems that occurred in the 1990s weakened this linkage. Flows are now available by SCTG (Standard Classification of Transported Goods) and employment is available for NAICS (North American Industrial Classification System) categories. The linkage between flows and employees is still present to some extent, but it is not as strong as it once was.

One might suggest that we revert to the previous approach and use the older data, but there have been far too many changes in the last twelve years to assume stability in the relationships identified at that time. In addition the models can not be revised because the necessary data are no longer published in the earlier format. If this were not enough, the SIC and NAICS systems are so different that it is not possible to set up a translation of one system into

the other at the level at which data are available for planning purposes. One could make such a translation at the five-digit level, but this level of detail is not released to researchers or planners. As a result the project team was required to start from the very beginning and develop entirely new traffic production models for the 41 SCTG commodity flow groups.

The traffic production models developed appear on the following page of this report (see Table 4-1 and Table 4-1a). The data in these two tables as well as the data used in the attraction models are essentially the same. The second table in each case uses acronyms in place of the SCTG codes and the NAICS codes.

These models were derived by correlating each flow group with employment in each of the NAICS industrial groups examined. In addition, population was also examined as were all of the other flow sectors. In the case of population this indicates production occurring in response to consumer demand in the production area. The relationship to other flows would occur when an industrial complex is present and the commodities being shipped are representative of the magnitude of that operation's other related sectors.

The NAICS industrial sectors for which employment was used in the modeling appear as Table 4-2.

It should be noted that the flows used to develop the models are expressed in thousands of tons. Therefore, if one wishes to derive actual tons the decimal point for the regression coefficient should be shifted three places to the right. The N value in the table represents the number of states with data for both the dependent and independent variables that were used to develop the models. These vary from 12 to 46.

The models derived vary significantly in terms of accuracy and in several cases these are hardly what we would want in a research study, but the intent here is not perfectly accurate models. The objective is to get general relationships rather than focusing on the unique aspects of the relationship.

The relationships represented by the models in the table have been forced to have an intercept that runs through the origin. In other words when there are no employees in the industry noted there is no flow for the commodity of interest. This seems like a reasonable assumption. Nevertheless, several of the models are very poor and for this reason some of these were replaced by simply the ratio of employees to thousands of tons produced.

Traffic Attraction

The 1997 *Commodity Flow Survey* published the amount of traffic produced for each commodity in each state for that year. This enabled the project team to develop the traffic production models discussed in the previous section. Similar data were compiled for the traffic

Table 4-1 Production Models Developed

SCTG	Equation	N	R^2
01	0.003 (331) + .007 (337)	22	0.498
02	0.256 (311)	36	0.337
03	0.135 (311)	34	0.647
04	0.149 (311)	41	0.772
05	0.054 (311)	42	0.880
06	0.045 (311) + 0.027 (333)	43	0.853
07	0.000748 (Pop) + 0.141 (335) + 0.083 (311)	46	0.964
08	0.0002188 (Pop) + 0.013 (334)	46	0.882
09	0.009 (313) + 0.005 (337)	19	0.690
10	0.016 (422) + 0.0001118 (Pop) + 0.005 (331)	22	0.919
11	0.087 (421)	28	0.839
12	0.835 (326) + 1.145 (314) + 0.443 (311)	40	0.940
13	0.226 (325)	29	0.507
14	modeled using employment growth and productivity only		
15	7.34 (212)	30	0.604
17	7.812 (324)	44	0.873
18	4.017 (324)	45	0.939
19	3.388 (324) + 0.142 (325)	41	0.918
20	3.151 (324)	43	0.782
21	0.011 (337) + 0.007 (313)	35	0.793
22	0.00081 (Pop)	35	0.304
23	0.025 (332) + 0.017 (325)	44	0.790
24	0.912 (324)	46	0.709
25	0.667 (321)	21	0.518
26	0.544 (321)	44	0.826
27	0.225 (322) + 0.058 (324)	44	0.810
28	0.029 (311) + 0.015 (334) + 0.053 (314)	45	0.931
29	0.024 (422) + 0.040 (322)	43	0.946
30	0.101 (314) + 0.051 (313) + 0.058 (324)	44	0.970
31	0.002 (Pop) + 0.248 (311)	45	0.909
32	0.356 (331) + 0.080 (336)	45	0.911
33	0.030 (332) + 0.266 (324) + 0.033 (327)	45	0.949
34	0.019 (333) + 0.026 (326)	47	0.897
35	0.017 (332) + 0.074 (324)	46	0.913
36	0.061 (336)	44	0.798
37	0.008 (331)	33	0.620
38	0.001 (421)	39	0.826
39	0.020 (337) + 0.004 (336)	45	0.918
40	0.000183 (Pop) + 0.066 (314) + 0.022 (311)	39	0.946
41	0.099 (332)	37	0.931
43	0.0004 (Pop)	38	0.905

Table 4-1a Production Models Developed

SCTG	Equation	N	R^2
(Animals)	0.003 (MetProd) + .007 (Furniture)	22	0.498
(Cereals)	0.256 (Food)	36	0.337
(AgProd)	0.135 (Food)	34	0.647
(Food)	0.149 (Food)	41	0.772
(Meat)	0.054 (Food)	42	0.880
(BakedGds)	0.045 (Food) + 0.027 (Machinery)	43	0.853
(Foodstuffs)	0.000748 (Pop) + 0.141 (Appliances) + 0.083 (Food)	46	0.964
(Alcohol)	0.0002188 (Pop) + 0.013 (Electronics)	46	0.882
(Tobacco)	0.009 (Textiles) + 0.005 (Furniture)	19	0.690
(Stone)	0.016 (WholesaleN) + 0.0001118 (Pop) + 0.005 (MetalProd))	22	0.919
(Sand)	0.087 (WholesaleD)	28	0.839
(Gravel)	0.835 (Plastics) + 1.145 (TexProd) + 0.443 (Food)	40	0.940
(Minerals)	0.226 (Chemicals)	29	0.507
(Ores)	see Table 4-1		
(Coal)	7.34 (MinOres)	30	0.604
(Gas)	7.812 (Print)	44	0.873
(Oils)	4.017 (Print)	45	0.939
(OilProd)	3.388 (Print) + 0.142 (Chemicals)	41	0.918
(Chemicals)	3.151 (Print)	43	0.782
(Drugs)	0.011 (Furniture) + 0.007 (Textiles)	35	0.793
(Fertilizer)	0.00081 (Pop)	35	0.304
(ChemProd)	0.025 (FabMetal) + 0.017 (Chemicals)	44	0.790
(Plastics)	0.912 (Print))	46	0.709
(Wood)	0.667 (WoodProd))	21	0.518
(WoodProd)	0.544 (WoodProd))	44	0.826
(Newsprint)	0.225 (Paper) + 0.058 (Print)	44	0.810
(Paper)	0.029 (Food) + 0.015 (Electronics) + 0.053 (TexProd)	45	0.931
(Print)	0.024 (WholesaleN) + 0.040 (Paper)	43	0.946
(Textiles)	0.101 (TexProd) + 0.051 (Textiles) + 0.058 (Print)	44	0.970
(MinProd)	0.002 (Pop) + 0.248 (Food)	45	0.909
(BaseMetal)	0.356 (MetProd) + 0.080 (TranEquip)	45	0.911
(MetArticles)	0.030 (FabMet) + 0.266 (Print) + 0.033 (Minerals)	45	0.949
(Machinery)	0.019 (Machinery) + 0.026 (Plastics)	47	0.897
(Electronics)	0.017 (FabMet) + 0.074 (Print)	46	0.913
(Vehicles)	0.061 (TranEquip)	44	0.798
(TranEquip)	0.008 (MetProd)	33	0.620
(Instrument)	0.001 (WholesaleD)	39	0.826
(Furniture)	0.020 (Furniture) + 0.004 (TranEquip)	45	0.918
(MiscMan)	0.000183 (Pop) + 0.066 (314TexProd) + 0.022 (Food))	39	0.946
(Waste)	0.099 (FabMet)	37	0.931
(Mixed)	0.0004 (Pop)	38	0.905

Table 4-2 Employment Variables Used in Modeling

NAICS	Description
212	Minerals and Ores
311	Food Manufacturing
312	Beverages and Tobacco Products
313	Textiles and Fabrics
314	Textile Mill Products
315	Apparel and Accessories
321	Wood Products
322	Paper
324	Printing, Publishing and Similar Products
325	Chemicals
326	Plastics and Rubber Products
327	Nonmetallic Mineral Products
331	Primary Metal Products
332	Fabricated Metal Products
333	Machinery, Except Electrical
334	Computer and Electronic Parts
335	Electrical Equipment, Appliances, and Components
336	Transportation Equipment
337	Furniture and Fixtures
421	Wholesale trade, durable goods
422	Wholesale trade, nondurable goods

attracted. While the shipments out from an area are obviously related to industrial activity for that commodity in the origin area, the attraction of traffic is handled somewhat differently.

We know that commodities are shipped in response to demand by markets and that these markets have essentially two components. One of these is a consumer market that is often represented by population. The other market is an industrial market, and this is often represented by related industries. In other words, automobile parts are often sent to an area involved in the assembly of automobiles. Or they are sent to parts distributers who in turn supply these to local dealers. It is reasonable to expect that the models developed should be related to both the industrial market (represented once again by NAIAS employment sectors) and the consumer market as represented by population.

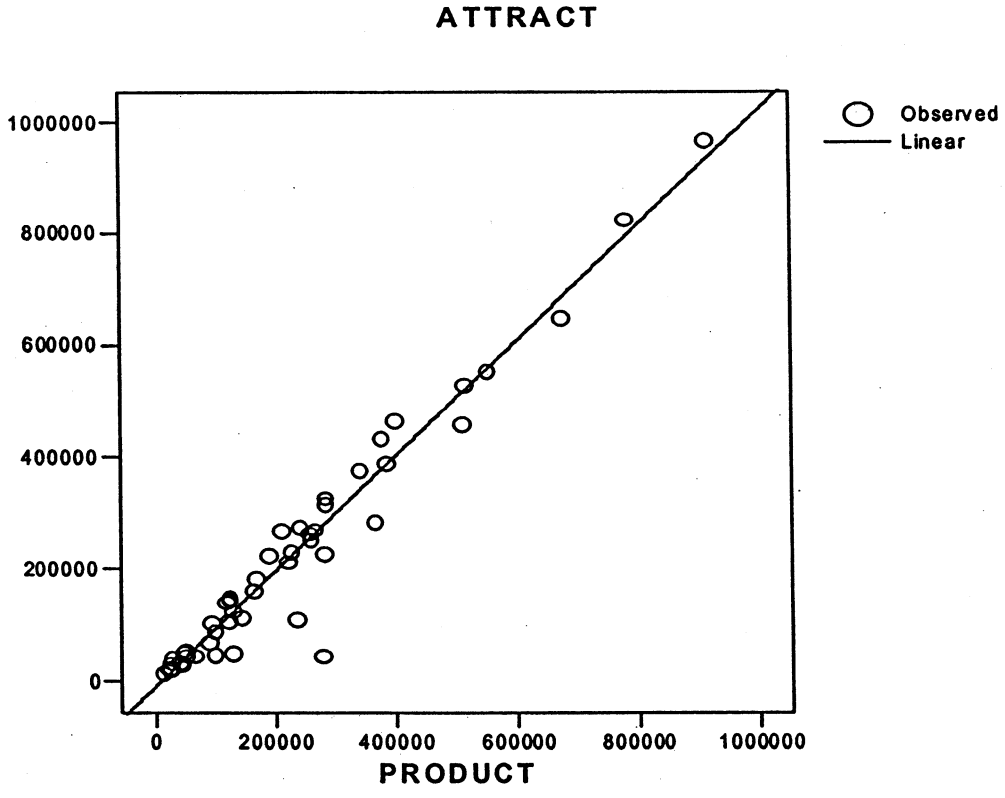
It is also understood that total productions are highly related to total attractions. This is reasonably well represented by the diagram below. This diagram is based on the total flow into each state and the total flow out of each state in tons for 1997. Unfortunately, as nice as this relationship is at the aggregate level, it does not hold with desegregation. For example, the states that are the largest shippers of coal are not the greatest importers of coal. Therefore, we will revert to the use of the earlier relationships between shipments and the industrial and consumer markets.

The models derived for traffic attraction appear in Table 4-3 and Table 4-3a. The estimates derived for all 41 SCAG groups for each of the 145 states and counties of the study can be found in Appendix A.

One technical point worth some discussion is related to the value of the coefficient of determination in the models derived. The models as noted used a zero intercept value in the model developed. This was done for a very practical reason. The value of the intercept could turn out to be negative and this would give an area a negative flow value in some cases. This is something very difficult to explain in a real world situation. Alternatively, the value of the intercept could be extremely large and when we are trying to estimate county flows, this would yield in most cases an unlikely value. So this is the reason for the zero intercept.

Returning to the interpretation of R^2 in these cases, it should be noted that the value of R^2 is not the ratio of an explained variance to total variances in the SASS regression routine. Rather it is a measure of variation about the origin, a notion that has little or no practical meaning. As a result a somewhat different approach was taken in this study. We have measured total variation and then measured how much of this can be explained by our model. This is not an OLS (ordinary least squares) model and therefore it is not a true R^2 value, but it can be interpreted as such. There is one possible flaw with this approach and that occurs when the model derived may be worse than simply using the mean value of the data series. The ramifications of this are that the R^2 value may exceed the normal range of -1 to +1. For the most part this was not a problem here. The modified values appear in Table 4-4 and 4-5.

Figure 4-1 Relationship of Total Productions and Total Attractions



Models Derived Discussion

The production and attraction models derived are not uniformly as good as might be desired. Looking over the production models one notes that the level of explanation on any criterion is not particularly good for those SCTG groups up through 15. These are agricultural or natural resource-based types of goods that are generally produced in states with good agricultural land or other natural resource endowments. Exceptions to this would be for foods and alcoholic beverages which may be for local markets. SCTG groups beyond 15 are often local market-oriented or industrial complex related. The worse models tend to be those where employment is not the best indicator of production or shipping capacity. The best example of this is the fertilizer industry (SCTG 22).

In general the attraction models tend to be much better that are related to consumer or industrial market sectors. Even here the models are not very good at the lower levels of the SCTG groups (1, 2, and 3, or live animals and fish, cereal grains, and agricultural products). Most of the other industrial or commodity sectors do much better, but fertilizer consumption is again low.

There is a clear need for some substantial research on the traffic generation models used in freight analysis. The models used in the earlier study tended to be much better. We suspect this was due to the close tie between the STCC and the SIC systems, which does not seem to be present between the SCTG and the NAICS systems. However, there are other potential sources of error. One of these may be due to the significant increase in the number of SCTG groups as compared to the STCC sectors. We now have nearly three times as many SCTG groups in comparison to the 15 or so STCC groups. This will tend to increase the possible sources of variance as well as error.

In addition to these points it should be apparent that some of the models don't make much sense on the surface. In particular the presence of employment in Print industries (NAICS 324) may bother some. We do not believe that this is a causal relationship so much as it is an associational variable. What this means is that in some cases the flows are clearly a causal function as is the case when we look at the generation of textiles flows as a function of employment in that industry and in the textile products industry. We do not believe the production of gasoline flows are causally determined by employment in the print industry, but we do believe that the Print variable may also be related to some higher level economic functions in an area and this is the basis for the association observed.

It might be desirable to not use such relationships, but that would be difficult to do since we have included all of the data we know of that is available on a county basis in our analysis. In other words there are no better economic variables available for use.Of course if those using these models find them completely unacceptable they could simply work with the data as published in 2002 and apply forecasted growth and expected increases in productivity to those values. This may be seen as being more effective than the approach we have used here although it would not yield estimates at the county level.

Table 4-3 Attraction Models Developed

SCTG	Equation	N	R^2
01	0.004 (311)	18	0.488
02	2.724 (324)	37	0.399
03	1.196 (324)	45	0.504
04	0.148 (311)	45	0.839
05	0.030 (311) + 0.00015 (Pop) + 0.0004 (336)	48	0.971
06	0.00018 (Pop) + 0.025 (311) + 0.022 (325)	47	0.980
07	0.000903 (Pop) + 0.068 (311) + 0.104 (322)	48	0.986
08	0.000250 (Pop) + 0.008 (334) + 0.023 (315) + 0.078 (312)	47	0.984
09	0.008 (313) + 0.004 (337)	44	0.732
10	0.015 (325)	22	0.688
11	0.00121 (Pop)	30	0.899
12	0.395 (311) + 1.237 (314) + 0.903 (331) + 2.003 (312)	41	0.966
13	0.338 (322)	37	0.628
14	0.172 (331)	29	0.651
15	3.472 (212) + 0.727 (311)	42	0.847
17	4.60 (324) + 0.00169 (Pop)	44	0.912
18	3.237 (324) + 0.110 (325)	47	0.943
19	2.936 (324) + 0.199 (325)	44	0.899
20	3.218 (324) + 0.050 (334)	46	0.865
21	0.006 (325) + 0.002 (422)	48	0.866
22	0.000653 (Pop)	40	0.372
23	0.000104 (Pop) + 0.208 (324) + 0.067 (314) + 0.026 (326)	47	0.965
24	0.041 (325) + 0.295 (324) + 0.027 (333) + 0.062 (314)	45	0.931
25	0.683 (321)	33	0.555
26	0.494 (321) + 0.391 (324)	47	0.908
27	0.043 (311) + 0.123 (322) + 0.122 (324)	47	0.970
28	.00007030 (Pop) + 0.017 (334) + 0.021 (311)	48	0.951
29	0.000295 (Pop)	45	0.964
30	0.000041 (Pop) + 0.079 (314) + 0.032 (313) + 0.058 (324)	47	0.983
31	0.001777 (Pop) + 0.227 (311)	47	0.918
32	0.315 (311) + 0.079 (336)	47	0.911
33	0.428 (324) + 0.035 (333)	46	0.927
34	0.015 (333) + 0.009 (336) + 0.013(325)	47	0.939
35	0.000076 (Pop) + 0.076 (324) + 0.011 (326)	48	0.957
36	0.053 (336)	48	0.860
37	0.035 (324)	39	0.723
38	0.000415 (421) + 0.001848 (314) + 0.000442 (422)	48	0.959
39	0.000068 (Pop)	48	0.899
40	0.000235 (Pop) + 0.031 (321) + 0.014 (313)	44	0.946
41	0.051 (332) + 0.066 (331) + 0.037 (311)	40	0.941
43	0.000356 (Pop) + 0.036 (314)	46	0.924

Table 4-3a Attraction Models Developed

SCTG	Equation	N	R^2
(Animals)	0.004 (Food)	18	0.488
(Cereals)	2.724 (Print)	37	0.399
(AgProd)	1.196 (Print)	45	0.504
(Food)	0.148 (Food)	45	0.839
(Meat)	0.030 (Food) + 0.00015 (Pop) + 0.0004 (TransEquip)	48	0.971
(BakedGds)	0.00018 (Pop) + 0.025 (Food) + 0.022 (Chemicals)	47	0.980
(Foodstuffs)	0.000903 (Pop) + 0.068 (Food) + 0.104 (Paper)	48	0.986
(Alcohol)	0.000250 (Pop) + 0.008 (Electronics) + 0.023 (Apparel) + 0.078 (BevTob)	47	0.984
(Tobacco)	0.008 (Textiles) + 0.004 (Furniture)	44	0.732
(Stone)	0.015 (Chemicals)	22	0.688
(Sand)	0.00121 (Pop)	30	0.899
(Gravel)	0.395 (Food) + 1.237 (TexProd) + 0.903 (MetProd) + 2.003 (BevTob)	41	0.966
(Minerals)	0.338 (Paper)	37	0.628
(Ores)	0.172(MetProd)	29	0.651
(Coal)	3.472(MinOres)+ 0.727 (Food)	42	0.847
(Gas)	4.60 (Print) + 0.00169 (Pop)	44	0.912
(Oils)	3.237 (Print) + 0.110 (Chemicals)	47	0.943
(OilProd)	2.936 (Print) + 0.199 (Chemicals)	44	0.899
(Chemicals)	3.218 (Print) + 0.050 (Electronics)	46	0.865
(Drugs)	0.006 (Chemicals) + 0.002 (WholesaleN)	48	0.866
(Fertilizer)	0.000653 (Pop)	40	0.372
(ChemProd)	0.000104 (Pop) + 0.208 (Print) + 0.067 (TexProd) + 0.026 (Plastics)	47	0.965
(Plastics)	0.041 (Chemicals) + 0.295 (Print) + 0.027 (Machinery) + 0.062 (TexProd)	45	0.931
(Wood)	0.683 (Print)	33	0.555
(WoodProd)	0.494 (WoodProd) + 0.391 (Print)	47	0.908
(Newsprint)	0.043 (Food) + 0.123 (Paper) + 0.122 (Print)	47	0.970
(Paper)	.00007030 (Pop) + 0.017 (Electronics) + 0.021 (Food)	48	0.951
(Print)	0.000295 (Pop)	45	0.964
(Textiles)	0.000041 (Pop) + 0.079 (TexProd) + 0.032 (Textiles) + 0.058 (Print)	47	0.983
(MinProd)	0.001777 (Pop) + 0.227 (Food)	47	0.918
(BaseMetal)	0.315 (Food) + 0.079 (TransEquip)	47	0.911
(MetArticles)	0.428 (Print) + 0.035 (Machinery)	46	0.927
(Machinery)	0.015 (Machinery) + 0.009 (TransEquip) + 0.013(Chemicals)	47	0.939
(Electronics)	0.000076 (Pop) + 0.076 (Print) + 0.011 (Plastics)	48	0.957
(Vehicles)	0.053 (Plastics)	48	0.860
(TranEquip)	0.035 (Print)	39	0.723
(Instrument)	0.000415 (WholesaleD) + 0.001848 (TexProd) + 0.000442 (WholesaleN)	48	0.959
(Furniture)	0.000068 (Pop)	48	0.899
(MiscMan)	0.000235 (Pop) + 0.031 (WoodProd) + 0.014 (Textiles)	44	0.946
(Waste)	0.051 (FabMet) + 0.066 (MetProd) + 0.037 (Food)	40	0.941
(Mixed)	0.000356 (Pop) + 0.036 (TexProd)	46	0.924

Table 4-4. Adjusted Explanation for Zero Intercept – Production

	SCTG	SST	SSRES	SSR	R2
1	1	1166941	775607	391334	.3354
2	2	9827651819	.	.	.
3	3	1153031012	770009907	383021105	.3322
4	4	1159600556	525666820	633933736	.5467
5	5	115482559	31110802	84371757	.7306
6	6	261104963	72943626	188161337	.7206
7	7	3347582999	239307632	3108275367	.9285
8	8	241101175	45218547	195882628	.8124
9	9	4156889	1414443	2742446	.6597
10	10	5013349	547792	4465557	.8907
11	11	1969509121	699715489	1269793632	.6447
12	12	53519615356	7797626545	45721988811	.8543
13	13	1292370633	959381123	332989510	.2577
14	14	2231103764	.	.	.
15	15	1E+011	64032284853	47888676984	.4279
16	17	50776097062	8915444006	41860653056	.8244
17	18	12442250317	1051040847	11391209470	.9155
18	19	13129166064	1488353040	11640813024	.8866
19	20	10741968486	276164077	10465804409	.9743
20	21	4865579	1442305	3423274	.7036
21	22	3074766229	2576471094	498295135	.1621
22	23	271928515	96279718	175648797	.6459
23	24	810930819	342894005	468036814	.5772
24	25	4517616409	390127271	4127489138	.9136
25	26	2341834550	754931076	1586903474	.6776
26	27	372275553	151924229	220351324	.5919
27	28	290317643	21806771	268510872	.9249
28	29	161513773	15046555	146467218	.9068
29	30	140550424	5238779	135311645	.9627
30	31	14165392706	2553742688	11611650018	.8197
31	32	5583958550	692111193	4891847357	.8761
32	33	309430014	27412385	282017629	.9114
33	34	85550293	13769523	71780770	.8390
34	35	46452607	6926158	39526449	.8509
35	36	747724756	194078542	553646214	.7404
36	37	1094080	656857	437223	.3996
37	38	221691	67529	154162	.6954
38	39	10595057	1594671	9000386	.8495
39	40	119378097	13516673	105861424	.8868
40	41	900314821	106666385	793648436	.8815
41	43	302110283	51264813	250845470	.8303

Table 4-5. Adjusted Explanation for Zero Intercept – Attraction

	SCTG	SST	SSRES	SSR	R2
1	1	.	.	.	.
2	2	121564576	111177105	10387471	.0854
3	3	197409801	141518894	55890907	.2831
4	4	1017483392	334379850	683103542	.6714
5	5	144569195	7922086	136647109	.9452
6	6	224918809	9082367	215836442	.9596
7	7	3154176610	93355445	3060821165	.9704
8	8	162735625	4954435	157781190	.9696
9	9	3050215	467194	2583021	.8468
10	10	4659047	2050195	2608852	.5600
11	11	2030884335	456419418	1574464917	.7753
12	12	52208285031	4266973688	47941311343	.9183
13	13	1134574594	686750896	447823698	.3947
14	14	583546684	273289209	310257475	.5317
15	15	30692834582	10030481693	20662352889	.6732
16	17	36503841716	4943518707	31560323009	.8646
17	18	10423849516	854355944	9569493572	.9180
18	19	12420089498	1732775018	10687314480	.8605
19	20	6889080187	1186847134	5702233053	.8277
20	21	2962599	670852	2291747	.7736
21	22	2655657653	2076398982	579258671	.2181
22	23	214571306	13708176	200863130	.9361
23	24	374735007	47608072	327126935	.8730
24	25	6183589921	4172934398	2010655523	.3252
25	26	2154010191	406623416	1747386775	.8112
26	27	375229029	23913761	351315268	.9363
27	28	270994045	15697566	255296479	.9421
28	29	158941322	10371117	148570205	.9347
29	30	85196165	2171640	83024525	.9745
30	31	13360778680	2205674433	11155104247	.8349
31	32	4378079421	594821297	3783258124	.8641
32	33	293609823	39464420	254145403	.8656
33	34	64782949	7250362	57532587	.8881
34	35	42257428	3252821	39004607	.9230
35	36	482172434	96246183	385926251	.8004
36	37	1077648	471241	606407	.5627
37	38	221533	16181	205352	.9270
38	39	8206145	1664656	6541489	.7971
39	40	137111674	15872566	121239108	.8842
40	41	832359522	63284863	769074659	.9240
41	43	274913997	31460707	243453290	.8856

Evaluation of the Models Developed

During the course of the study the results of the 2002 Commodity Flow Survey were released. Although it was beyond the scope of the project we were asked to take the models developed to that point using 1997 data and use these to estimate the value of the flows for the 2002 data and then to evaluate how close these were. This task was undertaken using the production models developed since these were the only ones available at the time.

The results of that analysis are displayed in Figure 4-2. The values along the vertical axis run from approximately .55 to nearly 1.0 and these reflect the values of the correlations obtained in the initial modeling, i.e., the cases where the models were fitted statistically to the 1997 data. In that case the values for the various NAICS employment variables were used to estimate the flows for the different SCTG groups. There were 36 models evaluated, and sample sizes were too small in the other cases.

The values along the horizontal axis represent the fits obtained when these exact same models were used to estimate the values for 2002. In other words the models derived from analysis of the 1997 data were applied to NAICS data for 2002 to yield estimates of the 2002 flows that were known from the newly released 2002 Commodity Flow Survey.

As one can see the values corresponding to the horizontal axis are not as large and several are quite small. On the other hand the clustering of values in the upper right quadrant of the diagram suggests the models are generally high. We would never expect the estimates to be better than the original fitted model although it does happen in one case here. This involves the estimate of gasoline flows which was .934 in the fitted model and .961 in the estimation of the 2002 data. This is a chance occurrence and should not be expected to occur.

Estimates at the Sub-County Level

The Indiana Travel Demand Model is actually used at the traffic analysis zone level (TAZ). It should be apparent to the reader that the entire analysis of freight traffic generation here was based on models that were derived using state-level data. These models once derived were then used to estimate the tonnages produced and attracted at the county level. We are still some way from the TAZ level since these are considerably smaller than the county level and this raises the question of how the state planners and their consultants can move from the county level to the TAZ level.

During the previous freight planning work in the 1990s the state made use of address-specific Dun & Bradstreet employment data. These data specify exactly what kind of industry is carried out at different locations. The employment in that industry can then be used to allocate a portion of the county's flows to the TAZ where that employment is located. Similarly on the attraction side the allocation can go to that TAZ that has employment in the sector that attracts the

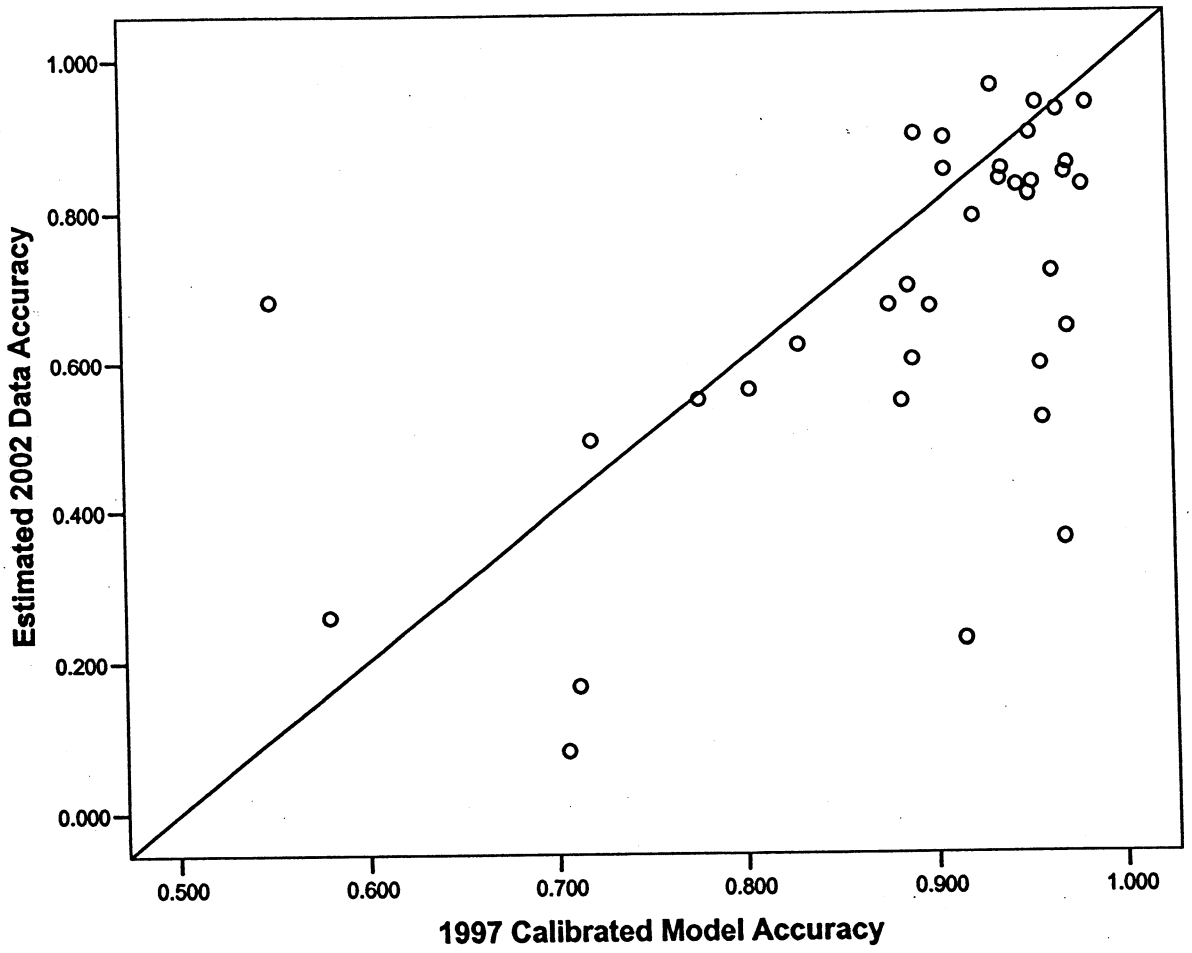


Figure 4-2. Evaluation of the 1997 Models with 2002 Estimates

flows. If the flows are consumer-oriented then the population of the TAZ can also be used to allocate attracted flows to a county to its sub-county TAZ units.

This approach seems to have worked reasonably well in the past so there is no reason to believe that it will fail to work now. Fortunately, those that did this portion of the analysis in the past are still available to the state.

Summary

This chapter has discussed the models developed for the freight traffic generation portion of this study. Production and attraction models developed for predicting the future volume of freight traffic originating or terminating were presented for all of the SCTG classes examined in this study. The independent variables from the NAICS groups were also identified. Attributes of the models and an evaluation of the models for 2002 were also discussed here. The chapter concludes by reviewing the basic manner in which the modeling could be used to estimate traffic production and attraction at the sub-county level.

Chapter 5

THE DISTRIBUTION OF COMMODITY TRAFFIC

Given the level of shipments emanating from the origin or production areas of interest and the level of flow attracted to the different destination or market areas, the next step is to model the volume of flow taking place between all origins and destinations. This modeling takes place for several reasons in this study, but in most studies we model current flows so that we can insert forecasted values into the model for some future time and estimate the volume of flows that should take place between the areas of interest at that point in the future.

This study took the known flows produced by the states of the US and the known flows attracted to a set of states and developed estimates for the remaining states for which data were not released. It also used these same models to estimate the traffic produced and attracted to the counties of Indiana. After addition of several nodes in neighboring states there was a possible 145 x 145 flow matrix to fill with flow estimates. There are different models that can be used for this purpose.

The models that can be used for distributing flows between origins and destinations today are almost exclusively models based on the gravity model. In general, that model states that the level of interaction between two areas is directly proportional to the product of their masses and inversely proportional to the square of the distance between them. Transport planners use the volume of flow produced and the volume of flow attracted as measures of the mass, and usually Euclidian distance as a measure of the distance or spatial separation between the areas. Rather than using the square of the distance, a power function, or in some cases an exponential function, is allowed to vary and the value selected is usually the one that yields the best fit to the data at hand.

In the 1997 study the flow model utilized was a fully-constrained gravity model. This model constrains the estimated flows in such a way that the total flows produced do not exceed the observed flows produced, and the estimated flows arriving at any given destination do not exceed the observed flows received at these locations. In addition, the average length of shipments generated by the model is constrained to be the same as the average length of the observed shipments.

The 1997 study evaluated the model results by looking at selected locations in the state to see if the volume of trucks at those locations were similar to the number of trucks estimated by the modeling and traffic assignment of such vehicles. This is at the very end of the modeling process at a point where the entire flow modeling and traffic assignment process would have to be repeated if it was found to have a large level of error.

At the outset of the modeling process in the present case it was not apparent that similar "actual" flows would be available for comparison with the modeled flows and this necessitated some consideration of how the model could be evaluated. In the urban transportation planning process the actual flows between places are known based on an expanded sample of data received by roadside interviews and home interview surveys. In that case correlation could be used, but it is not. Instead the modeling process is evaluated immediately after the flows are estimated by comparing the trip length frequency distribution of these estimated flows with the trip length frequency distribution of the flows from the expanded sample. This seemed as though it would be a reasonable approach since the trip length frequency distribution of shipments is know for each commodity. As a result it was decided at the outset of the project that a similar approach to evaluation would be utilized here, but if other data became available it would be used as well.

The Initial Model

The first model used in the present study was the fully-constrained gravity model noted above. This was the model used in the 1997 study. The production and attraction of commodities were derived as explained in the previous chapter. The average length of shipments was known from the 1997 *Commodity Flow Survey*. These distance values for different commodities were used in the modeling.

The model used took the form:

$$S_{jk} = A_j B_k O_j D_k \exp(-\beta c_{jk})$$

where S_{jk} = the amount of a given commodity shipped from origin area *j* to destination area k;

O_j = the amount of a given commodity available for shipment at origin *j*;

D_k = the amount of a given commodity demanded by destination *k*;

c_{jk} = a measure of the cost or impedance of moving from *j* to *k*.

In addition,

$$A_j = [\Sigma B_k D_k \exp(-\beta c_{jk})]^{-1}$$

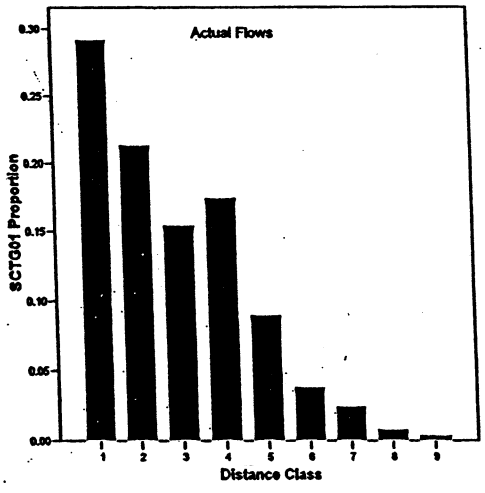
and

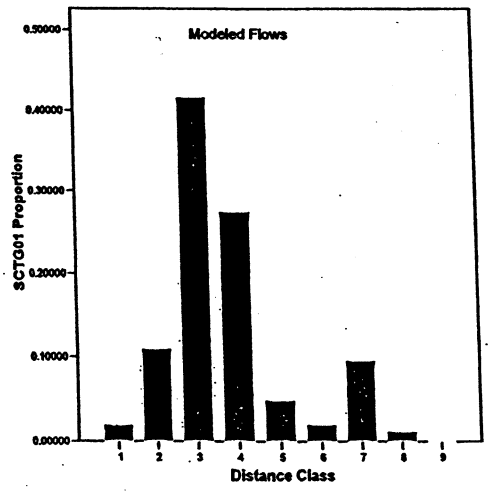
$$B_j = [\Sigma A_j D_j \exp(-\beta c_{jk})]^{-1}$$

The flows of all 41 commodity groups were estimated using this model. This was done even though some of these commodities are not very significant to Indiana. They do nevertheless often move through the state on their way from origins to destinations north, south, east or west of the state.

The next step in the analysis was to evaluate how closely frequency distributions of the generated flows resembled the frequency distributions of the actual flows as published in the volumes of the 1997 *Commodity Flow Survey* (*CFS*). In order to create the model frequency distributions the 21,025 flow estimates for each commodity were examined, along with their distances, and these values were placed into distance classes identical to those in the *CFS*. This was accomplished using a program written for this purpose.

It is an understatement to say that the results were not very satisfactory. The primary problem appears to be that the estimated flows failed to display the expected distance decay in commodity shipments similar to what is found in the actual flows. In part this may be due to the model trying to satisfy the various constraints of this form of the gravity model. In addition there is definitely a problem with the possibility of short range flows (flows up to 250 miles in length), since the only possibility of truly short moves in the database are those between counties in Indiana and between a few small states on the East Coast. The situation is illustrated below for SCTG 01. The actual flows histogram reflects the flow values as published in the *CFS* and the modeled flows are those from the fully constrained model used here.





One possible way of correcting this bias against short trips was to look again at the intrastate distances used as input to the gravity model. The average length of a trip beginning and ending in the same state has traditionally been calculated as one-half the square root of the state's area. This may tend to make the intrastate distances too long in many cases. One way of correcting this figure was to use the average length of an intrastate shipment for all commodities as published in the 1997 *Commodity Flow Survey* report. The new distance values were considerably shorter than the previous values.

The fully-constrained model was rerun, but the new values did not have an appreciable impact on the accuracy of the estimates. A decision was made at this point to try the production-constrained gravity model. One of its major attributes is a tendency for shipments to drop off rather quickly following departure from the origin for nearly every commodity group and it was thought that this would improve the overall quality of the modeled flows.

The production-constrained model used had the form

$$S_{ij} = O_i D_j F_{ij} G_j$$

where $F_{ij} = 1 / c_{ij}^{\lambda}$

and $G_j = 1 / [\Sigma D_j F_{ij}]$.

The only problem with this formulation is that we need some way of determining the value of the parameter lamda (λ). The value can not be calculated directly, but it can be determined iteratively by setting the value equal to 0.00 and incrementing it by .01 after each model iteration. Also after each iteration the average length of the shipments for each commodity between the 145 x 145 areas in this study is calculated. The iterative process continues until the average length of these shipments for each commodity as published by the *CFS* is achieved by the model. The corresponding lamda value becomes the value used in the model for that commodity. This solution method could be called a computer intensive solution. The lamda values obtained are in Table 5-1.

This particular model resulted in estimates that tend to have a clear distance decay, i.e., the largest flows are of the shortest length for nearly every commodity examined and they drop off significantly with increasing distance. This is reflected in the lamda value obtained in several cases. For example, several of the most extreme values of lamda in the model are obtained for commodities: SCTG 10, Monumental and Building Stone, SCTG11 Natural Sands, and SCTG 13 Gravel and Crushed Stone. These are nearly ubiquitous materials and it makes very little sense to transport them long distances since they are heavy, of low value relative to their weight, and as noted found

Table 5-1. Production Constrained Model Attributes for 40 Commodities

	SCTG	MeanDist	Modelled	Tons	Tonmiles	Exponent
1	1	253	254	5922001	1503523710	1.52
2	2	410	411	489693024	201222472000	1.26
3	3	400	400	201660960	80581140500	1.16
4	4	213	212	219698944	46605869100	1.65
5	5	458	456	79485000	36217925600	1.02
6	6	472	471	102721008	48370352100	.96
7	7	313	312	396882112	123923538000	1.29
8	8	343	343	81079008	27782098900	1.23
9	9	245	245	4128001	1012662780	1.34
10	10	93	94	15893002	1486681730	2.24
11	11	58	59	442509120	26052460500	3.11
12	12	51	52	1814761090	94263500800	3.40
13	13	222	221	235731008	51991052300	1.60
14	14	526	526	90705000	47667941400	1.03
15	15	446	444	1217037950	540288123000	1.07
16	17	142	141	962814912	136201953000	1.79
17	18	106	107	481681952	51370250200	2.01
18	19	172	172	475105088	81946148900	1.63
19	20	462	459	296055968	135883530000	1.03
20	21	564	562	9896999	5558334460	.71
21	22	243	241	179056032	43098857500	1.58
22	23	489	490	92034000	45072269300	.89
23	24	530	528	130410992	68808646700	.79
24	25	76	77	370686112	28383195100	2.53
25	26	294	291	329118944	95821635600	1.40
26	27	549	545	152290000	82961449000	.83
27	28	299	299	73512992	21994102800	1.29
28	29	292	292	78052992	22764777500	1.28
29	30	538	536	45872000	24567932900	.63
30	31	100	100	910133184	91337072600	2.20
31	32	350	348	335878048	116840858000	1.09
32	33	457	453	106518992	48282214400	.97
33	34	542	539	49914996	26907611100	.72
34	35	683	678	39612000	26869575700	.58
35	36	464	463	98073984	45397053400	.81
36	37	686	686	5477000	3759114750	.55
37	38	738	736	2938997	2161702400	.57
38	39	581	579	19909998	11524856800	.72
39	40	354	352	112491976	39547281400	1.13
40	41	225	225	177823952	40061886500	1.48

nearly everywhere. The lamda obtained for these commodities were 2.24, 3.11, and 3.40, respectively. The lowest value of lamda obtained, .55, was for motorized and other vehicles. This is as it should be. Automobiles are manufactured nearly all over the country, but usually not the same models. In effect, the vehicles shipped are a response to a national market. Also, the buyer of the vehicle usually bears the cost of shipping the vehicle from the plant to the dealership, and within certain limits there is no reason for the shipper to try to minimize this cost.

The frequency distributions obtained using the production-constrained gravity model appear to be much more realistic than they were with the fully-constrained gravity model. We have not subjected these to any statistical analysis because the degrees of freedom for such a test, e.g., the Kolmogorov-Smirnoff (KS) test for comparison of frequency distributions, base their degrees of freedom on the total number of possible observations. In this case with 145 x 145 observations, it would be silly to evaluate the results by testing. This number of observations will nearly always result in a finding that the distributions are significantly different. One must bear in mind that these and similar tests were all developed for much smaller data samples and they become inappropriate here.

The actual and estimated frequency distributions were examined individually and it is believed that the production-constrained model does a much better job of capturing the general pattern of these flows (in terms of frequency distributions) at the national level. Perfect replication was not expected. If this did result there is every likelihood that the model would have over-fitted the data.

Although these frequency distributions are of interest the major test of accuracy would come with a comparison of the generated flow volumes on the highways with previously obtained counts from the Indiana road inventory database. When this comparison was undertaken the results were very poor. More specifically, the correlation between the observed and estimated flows was approximately .40. This meant that the modeled flows were only accounting for about 16% of the variation in the actual flows. This was viewed by the project staff as unacceptable.

Restarting the Analysis

At this point a complete reexamination of the distribution modeling approach was undertaken. Several basic changes were made in the analysis. An estimation procedure for the modal shift analysis developed earlier in the project was discarded. Instead the staff relied more on the published data and taking care to estimate the missing values in that data. A similar approach was taken with the data on attraction. It was known that the fully-constrained gravity model had worked much better in the earlier project so the decision was made to rely on that model in a complete repetition of the distributional modeling.

At the same time it is imperative that we note a couple of general observations about that

model. The first of these is that the fully-constrained model does not do a very good job of replicating the published shipment length frequency distributions. The reasons for this seem obvious in retrospect. The actual frequency distributions are based on what the shippers responded in the *Commodity Flow Survey*. Perhaps some of these shipments only go a relatively short distance and this would be recorded as the shipment length. The data available to the project staff would merely state the shipment's destination. It was not possible to replicate short shipping distances because there are far too few of these possible at the scale of the analysis being undertaken here. Even though we know most shipments are short in length, the only possibility of such short shipments would be between some small states in the Northeast, or between some counties in Indiana.

The second point is that although the shipment length frequency distributions are of interest, the primary goal here is to replicate the flows to, from, through and within the state of Indiana. It was known that the fully-constrained model had done this before so it was assumed that this model would work better. If data were available so that the modeling could be between all the counties in the 48 contiguous states, we suspect that the generated frequency distributions would be very similar to the values published in the *CFS*. It is not possible to get that level of accuracy here.

One final point is that the level of disaggregation is much higher than it has been in previous studies. As noted above this study examines 41 different commodity groups in comparison to earlier studies that examined 15 to18 groups. This is bound to have an impact on the level of accuracy since the methods used here tend to work better at the highly aggregated level of the Standard Industrial Classification (SIC) system and the Standard Transportation Commodity Classification (STCC).

The fully-constrained model was run for a second time, disregarding the national picture and focusing more on the Indiana results. The exponential form of this model yields values that are considerably smaller (see Table 5-2) than those from the production constrained model's power function as reflected in Table 5-1. The actual length of shipments was very close to the input values as reflected in Table 5.3.

Modifying the Distributed Flows

The modeled flows were calculated from the gravity model as simply thousands of tons. A subsequent computer program took these flows and converted them to tons, dollars of product value, and truck loads. The first of these was accomplished quite simply by converting the thousands of tons carried to three decimal places to simply total tons. The original production and attraction data are only published in thousands of tons so this may appear to be going beyond the validity of the data, but it was important to get to a level of detail that would have meaning at the level of inter-county flows in Indiana.

Table 5-2. Fully-Constrained Gravity Model Exponents for Indiana, 1997

SCTG Code	Commodity Group	Exponent
01	Live Animals and Fish	-.0510
02	Cereal Grains	-.0031
03	Agricultural Products Except Live Animals, Cereal Grains, and Forage products	-.0030
04	Animal Feed and Products of Animal Origin	-.0070
05	Meat, Fish, Seafood, and Preparations	-.0024
06	Milled Grain Products and Preparations, and Bakery Products	-.0023
07	Prepared Foodstuffs, Fats, and Oils	-.0039
08	Alcoholic Beverages	-.0035
09	Tobacco Products	-.0054
10	Monumental or Building Stone	-.0199
11	Natural Sands	-.0146
12	Gravel and Crushed Stone	-.0140
13	Non-metallic Minerals	-.0067
14	Metallic Ores	-.0016
15	Coal	-.0031
17	Gasoline and Aviation Turbine Fuel	-.0100
18	Fuel Oils	-.0136
19	Products of Petroleum Refining and Coal Products	-.0069
20	Basic Chemicals	-.0022
21	Pharmaceutical Products	-.0014
22	Fertilizers and Fertilizer Materials	-.0050
23	Chemical Products and Preparations	-.0021
24	Plastics and Rubber	-.0018
25	Logs and Other Wood in the Rough	-.0104
26	Wood Products	-.0043
27	Pulp, Newspaper, Print, and Paperboard	-.0016
28	Paper or Paperboard Articles	-.0038
29	Printed Products	-.0040
30	Textiles, Leather, and Articles	-.0013
31	Non-metallic Mineral Products	-.0410
32	Base Metal in Primary or Semi-finished Forms and in Basic Shapes	-.0031
33	Articles of Base Metal	-.0023
34	Machinery	-.0015
35	Electronic and Other Electrical Equipment and Components; Office Equipment	-.0010
36	Vehicles	-.0017
37	Transportation Equipment	-.0010
38	Precision Instruments and Apparatus	-.0009
39	Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs	-.0015
40	Miscellaneous Manufactured Products	-.0318
41	Waste and Scrap	-.0067
43	Mixed Freight	-.0185

The conversion to dollars was relatively simple. The value per ton per commodity was used as a multiplier against the tons of commodities to yield the dollar value of shipments by commodity.

Density

One of the very important topics in estimating the volume of motor carrier and rail traffic after the volume of interaction (in tons) and the modal assignment have been determined is the density of the commodity. In other words, how much of the commodity can fit into a rail car or motor carrier? In the earlier (1997) commodity flow study these density factors were determined by examining flows of rail traffic categorized by the STCC system. These traffic data came from the Carload Waybill Sample, a sample of railroad commodity flow data that presents information on both the number of carloads and the tonnage of each commodity.

Changes in the commodity classification system have rendered the Carload Waybill Sample useless for the present purposes because that sample has continued to use the STCC system and the current study is using the Standard Commodity Transportation Group (SCTG) system. Although these two systems are similar they are not the same and this necessitated a search for new density factors.

It is fortunate that although the United States has not begun to publish data both on tonnage and carriers by SCTG commodity, Canada has. Their monthly *Railway Carloadings* (Transport Canada, 2004) reports give data both on the number of rail cars and the metric tonnes moved, and these are all given in terms of the SCTG system. From the reports consulted there is relatively good coverage in terms of the SCTG sectors included in the present study. There are some exceptions in terms of rail traffic and these are worth a brief discussion.

SCTG 01 Live Animals and Live Fish are not included in the Canadian rail data. As a substitute for this we have included weight estimates based on the recommended number of live animals per railcar derived by the Association of American Railroads. That data is based on the weights of hogs, cattle or sheep. The value of 9.77 tons per railcar was derived for this group.

SCTG 09 Tobacco Products average about 18.30 tons per truck. Rail traffic was estimated as larger by a multiplier of 2.5. Therefore, railcars were viewed as having a density of 45.75 tons.

SCTG 10 Monumental and Building Stone is also not in the Canadian data. It was estimated here as being 100 tons.

Also missing from the *Railway Carloadings* reports were data for SCTG 21,

Apparatus. In the first case and the last class these were excluded primarily because rail is not used to move these goods in part because of their higher value. Printed matter simply put is time sensitive and for the most part the railroads are not reliable for this purpose.

The movement of goods by motor carrier in the earlier (1997) study was set at 40% of the railcar tonnage and in nearly every case this proved to underestimate the actual volume moving, and underestimate the number of vehicles involved. An alternative was searched for and found in a Strategic Freight Transportation Analysis (SFTA) report for the State of Washington (Petersen, et al, 2004). The SFTA report derived density figures for motor carriers of freight based on interviews of motor carrier drivers during a survey. It is compiled by SCTG system and gives empirical rather than theoretical values for density. For the most part we have gone with the SFTA values for motor carriers. Exceptions to this statement do exist and these are as follows:

SCTG 01 Live Animals and Live Fish: the empirical data suggest a value of 22.9 tons per truck. This is more than twice the AAR recommended density for a railcar and probably several times what would be recommended for motor carriers.

SCTG 10 Monumental and Building Stone was set at 25.4 tons, instead of 40% of the of the rail car maximum density. It may not be representative of most traffic.

SCTG 15 Coal is used for the thermal generation of electricity and by some manufacturing firms. Although the 100 ton hopper car can be taken as a given, the motor carrier level was less obvious. As a result the rather large trucks that are used to move coal have an average capacity of about 22 tons and this is the value used.

All other values are essentially derived from the SFTA report. The commodity, density and mode of traffic appear on the following two pages as Table 5-4.

Density vs. Payload Factors

During the initial review of a draft of this document a question was raised as to the merits of the density factors discussed above and used in assigning tonnages to trucks and railcars. The earlier study had used density factors derived from STCC data in the railroad Carload Waybill Sample followed by some assumptions regarding the volume that would fit into a semi-tractor trailer. This approach would not work in the present study because the waybill sample continues to use the STCC system. All of this is explained above.

The question raised during the review was to what extent the density factors used in this volume approximate the payload factors derived by Cambridge Systematics (CS) based on their use of the Vehicle Inventory and Use Survey. CS supplied these factors to the IU research team

Table 5-4. Commodity Density Values for Railcars and Trucks

SCTG	Commodity	Railcar density	Motor carrier density
01	Live animals and live fish	9.77	3.91
02	Cereal grains	96.63	30.1
03	Other agricultural products	86.79	22.3
04	Animal feed and products of animal origin, n.e.c.	88.28	25.3
05	Meat, fish, seafood, and their preparations	74.41	18.6
06	Milled grain products and preparations and bakery products	85.50	21.4
07	Other prepared foodstuffs and fats and oils	87.02	21.0
08	Alcoholic beverages	87.31	21.0
09	Tobacco products	45.75	18.3
10	Monumental and building stone	100.00	25.4
11	Natural sands	97.97	25.4
12	Gravel and crushed stone	97.97	24.1
13	Nonmetallic minerals, n.e.c.	100.44	23.4
14	Metallic ores and concentrates	95.91	21.4
15	Coal	109.36	22.0
17	Gasoline and aviation turbine fuel	84.04	28.2
18	Fuel oils	88.22	20.0
19	Coal and petroleum products, n.e.c.	73.66	23.5
20	Basic chemicals	98.66	17.5
21	Pharmaceutical products		13.2
22	Fertilizers	101.81	27.4
23	Chemical products and preparations, n.e.c.	93.96	20.1
24	Plastics and rubber	94.30	13.3
25	Logs and other wood in rough	64.11	29.2

26	Wood products	82.41	24.2
27	Pulp, newsprint, paper and paperboard	82.75	23.5
28	Paper or paperboard products	70.90	17.2
29	Printed products		15.1
30	Textiles, leather and articles of textiles or leather	14.17	13.3
31	Nonmetallic mineral products	98.64	21.2
32	Base metal in primary or semifinished forms and in finished basic shapes	91.47	18.4
33	Articles of base metal	79.66	12.2
34	Machinery	49.77	13.8
35	Electronic and other electrical equipment and components and office equipment	16.69	12.7
36	Motorized and other vehicles (including parts)	21.73	13.3
37	Transportation equipment, n.e.c.	41.36	12.1
38	Precision instruments and apparatus		9.0
39	Furniture, mattresses and mattress supports, lamps, lighting fittings, and illuminated signs	15.00	10.7
40	Miscellaneous manufactured goods	65.22	14.0
41	Waste and scrap	79.86	20.0
43	Mixed freight	32.45	14.2

Sources: See text.

so that a comparison of the two systems could be made. The data used for this test appears as Table 5.5.

There is very little relationship between the two systems and the CS estimates are only able to explain about 14% of the variation in the detailed Indiana density factors. We see no reason to adopt the less precise CS values for the analysis here, although there is sufficient detail here for CS to use their system of payload factors in future applications of the results of this study.

Summary

This chapter has discussed the efforts made to identify the best distribution model for the problem at hand. Two models were evaluated for this purpose. A fully-constrained model was selected over a production-constrained model. Traffic density, the amount of a given product that will fit into a tractor trailer or railcar was also discussed here. The approach selected is commodity specific and based on actual measures used in the U.S. and Canada.

Table 5.5 IU Density Factors vs. Cambridge Payload Factors

	SCTG	Density	Payload
1	1	3.91	.
2	2	30.10	19.48
3	3	22.30	19.48
4	4	25.30	19.48
5	5	18.60	18.35
6	6	21.40	18.35
7	7	21.00	18.35
8	8	21.00	18.35
9	9	18.30	19.20
10	10	25.40	21.40
11	11	25.40	21.00
12	12	24.10	21.40
13	13	23.40	21.40
14	14	21.40	21.40
15	15	22.00	21.40
16	17	28.20	20.61
17	18	20.00	23.03
18	19	23.50	23.03
19	20	17.50	20.61
20	21	13.20	.
21	22	27.40	20.61
22	23	20.10	20.61
23	24	13.30	14.95
24	25	29.20	18.99
25	26	24.20	15.82
26	27	23.50	17.77
27	28	17.20	17.77
28	29	15.10	17.77
29	30	13.30	17.80
30	31	21.20	18.42
31	32	18.40	25.42
32	33	12.20	18.42
33	34	13.80	17.11
34	35	12.70	17.11
35	36	13.30	20.39
36	37	12.10	20.39
37	38	9.00	16.40
38	39	10.70	17.19
39	40	14.00	20.27
40	41	20.00	19.05
41	43	14.20	19.05

References

Petersen, Steven K., Eric L. Jessup, and Kenneth L. Casavant (2004), *Freight Movements on Washington State Highways: Results of the 2003-2004 Origin and Destination Survey*, Strategic Freight Transportation Analysis Report #10, Pullman, WA: Washington State University.

Transport Canada (2004), *Railway Carloadings*, Ottawa, Canada: Transport Canada. Various issues.

U.S. Bureau of Census (2002), *Vehicle Inventory and Use Survey*, Washington, D.C.: U.S. Department of Commerce.

Chapter 6

THE MODES IN THE ANALYSIS

The *Commodity Flow Survey* reports flow movements in several modal categories. This chapter simply notes the manner in which these are treated here. It is not possible to work with all of the various modal categories since flow data are not published for a number of them. It is for this reason that we have aggregated some of these categories.

Motor carriers

Motor carrier flows are often available as for-hire trucks or as private trucks. The former would be represented by a number of trucking companies, while the latter would be represented by those large companies that own a fleet of trucks. If proprietary data would be revealed on either category then the data available would be reported as trucks or would not appear in the data.

Rail

Rail is treated as a single modal category and flows are reported in this manner for the study. As we noted in Chapter 3, the Commodity Flow Survey also reports data as moving by the multiple modes of truck and rail and rail and water. As was also discussed in Chapter 3 truck and rail flows represent such a small proportion of the tonnage moving that we view these as primarily as rail moves and have categorized them in this manner. Rail and water moves were treated as water moves since this would be the manner in which they would tend to arrive in Indiana.

Water

In addition to the rail and water category the CFS recognizes water moves as shallow draft, Great Lakes, or deep draft. We have simply grouped all of these as well as the previously mentioned rail and water moves as water moves. Once again the rationale is that the data are simply not very good at these final modal categories once one leaves the national level. It is true that we could infer the flows that are coming into Indiana through Lake Michigan (the Great Lakes category) or the Ohio River (shallow draft). That is not the problem. The problem is that the data are simply not reported in a sufficient number of cases to merit breaking out the flows in

this manner. To use national level estimates of what these should be would be very misleading.

Therefore, the water data are simply all grouped into simply water. We do not break the data down any further than to infer what the origin and destination county of the traffic is. The data are only reported in this manner and are not later assigned.

Air

Air transport of freight even though it may and usually does involve another mode (usually a motor carrier) is often treated as only an air move. Indiana has little to do with air transport infrastructure and as a result it is the motor carrier portion of these moves that are of primary interest here.

Air freight shipments from outside of Indiana were treated as motor carrier moves generated from the nearest large airport to the county that was the final destination of these flows based on the distribution modeling. In a similar manner air freight flows generated by counties in Indiana were considered as motor carrier flows to the airport from which the flows would leave the state. Figure 6-1 is a representation of how these assignments were made for air freight.

Parcels

At one time one could almost disregard the previous air freight category as well as the shipment of parcels in a study such as this. This is no longer the case and moves by various express companies become major components for some shipments between different origins and destinations. There are some counties in Indiana that receive little or no commodity flows as such on a daily basis, but they all receive some goods via FedEx, UPS, the US Postal Service (USPS), and more recently DHL.

Since these are private for-profit operations in most cases (the exception is the USPS), data are not published on the companies involved in the flows. Research by the project team suggests that the market for such parcel shipments are broken down into proportions as follows:

FedEx	.27
UPS	.53
USPS	.13
DHL	.07

Therefore, total parcel shipments were divided among the various companies using the proportions reported above.

Further research revealed the primary airports used by these different parcel handlers and these were used in a manner similar to what was done with the air freight category above. That

is, flows going out of state or coming in state were treated as flows arriving at the nearest airport used by that parcel handler. Flows originating and terminating in the state were treated as ground moves of that carrier. The manner in which these flows were assigned to airports is reflected in Figures 6-2 through 6-5.

Pipelines

Pipelines were the final category reported in the *CFS* and set aside here. These flows were not included in any analysis simply because the state has no responsibility for the infrastructure used by this mode.

A Comment

The modes examined were selected because of their volumes. In a like manner some categories were collapsed into broader categories because their was a lack of sufficient data to do much more with them. We would note that the manner in which air and parcel traffic were treated is a bit more complicated than its volumes would indicate. This was done as much for research reasons as for planning reasons. We wanted to see if this approach has merit. It does and perhaps it might make sense to try and improve on some of the other modal flows n this manner.

Summary

This study has looked at flows by motor carriers, rail, water, pipelines, air freight, and parcels. These six modes were used as the basis for constructing tables of modal use by distance. These in turn were used to allocate the generated flows to such modes. Tables for this purpose appear in Appendix D. We have not assigned any flows to their respective networks beyond the rail and highway case.

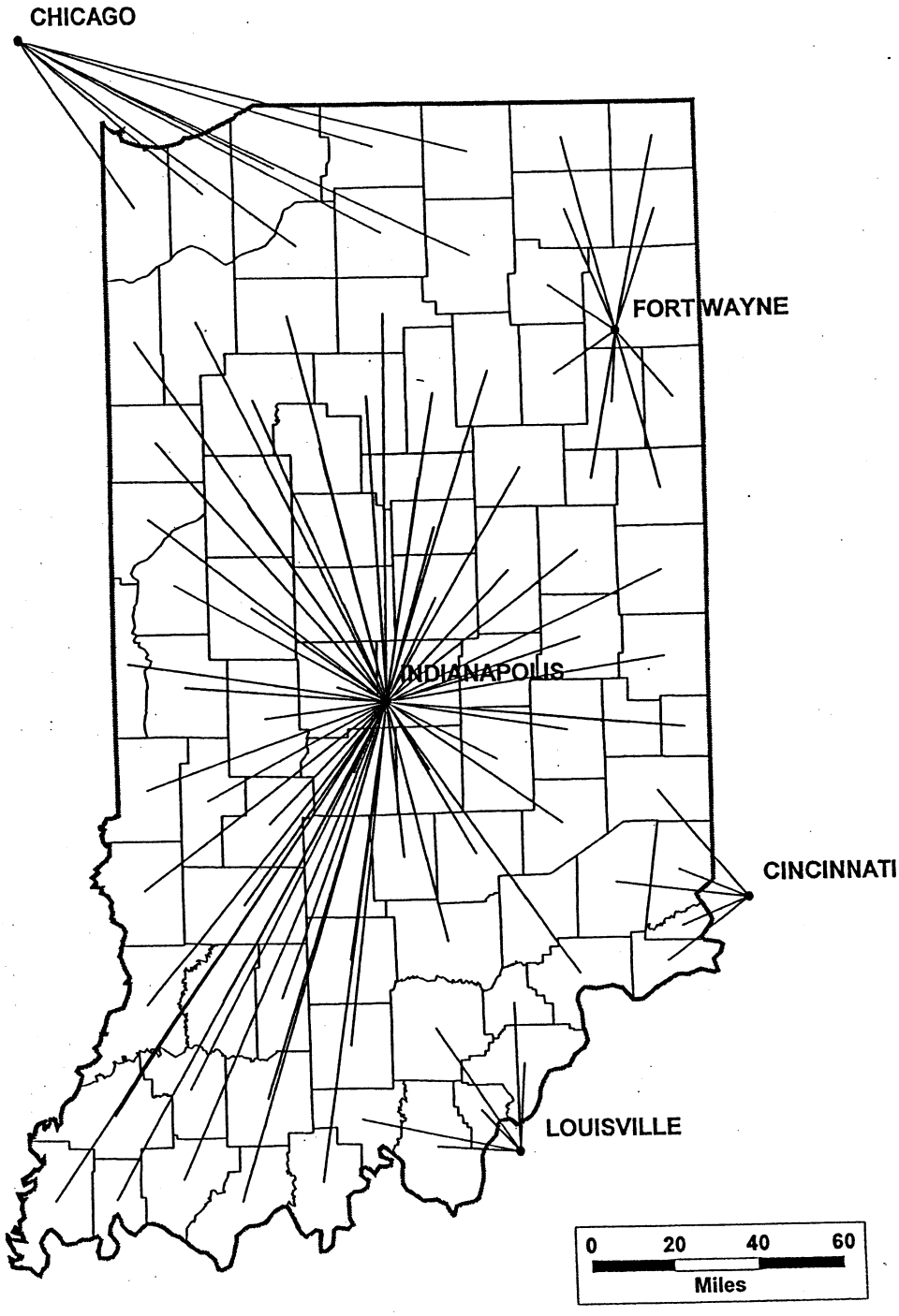


Figure 6-1. Market Area for General Air Freight in Indiana

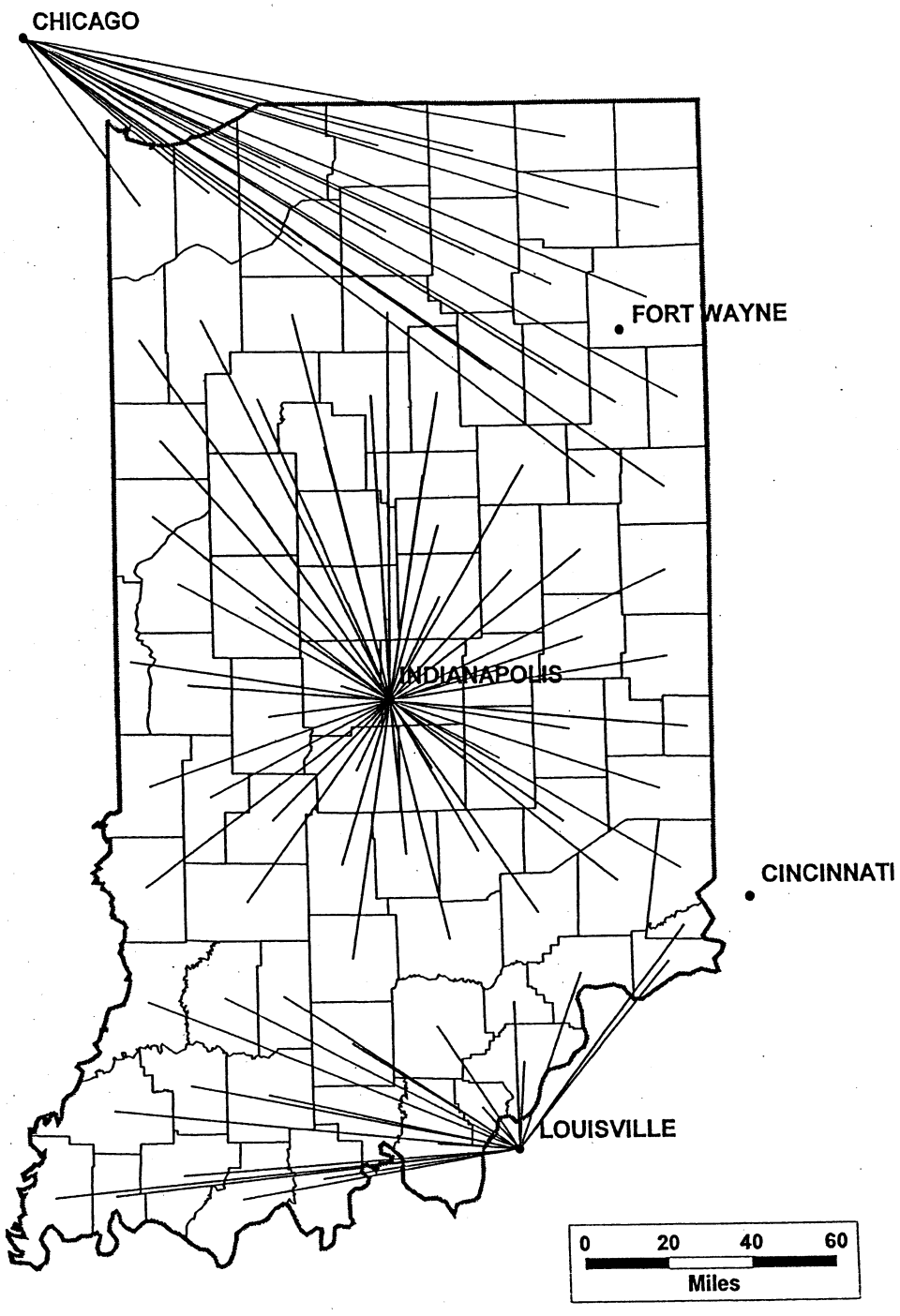


Figure 6-2. Market Areas for FedEx Parcels in Indiana

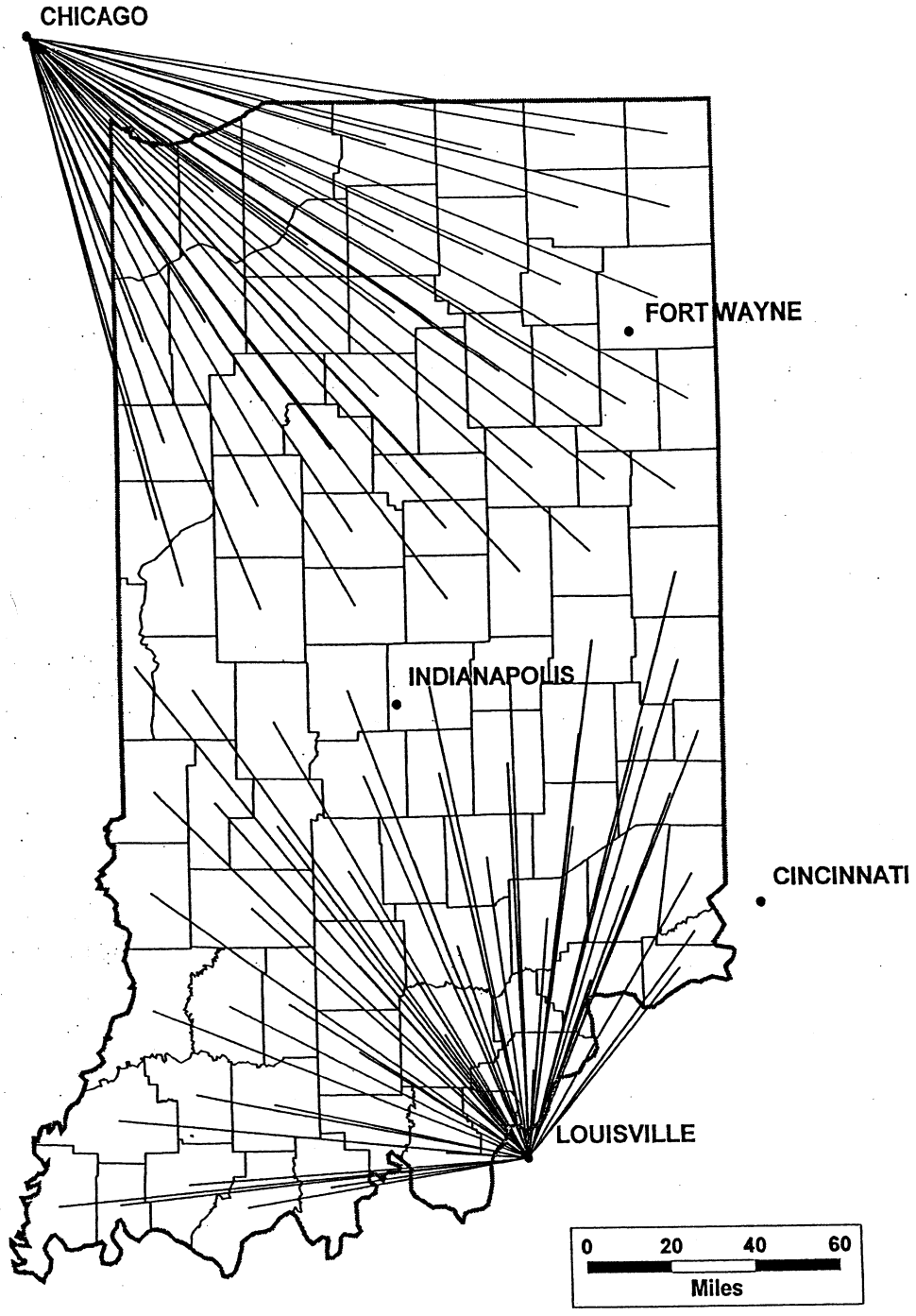


Figure 6-3. Market Areas for UPS Parcels in Indiana

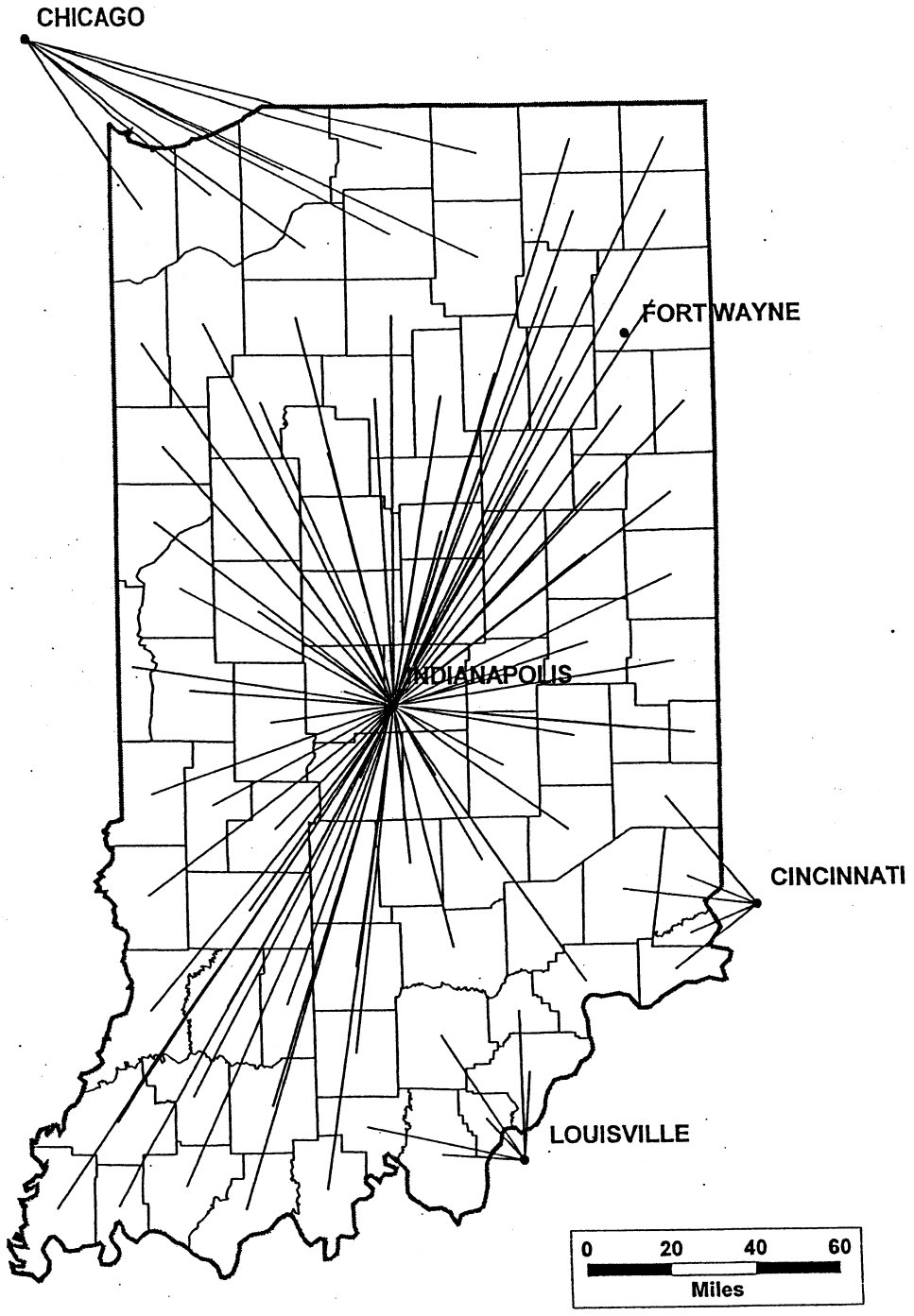


Figure 6-4. Market Areas for the USPS Parcels in Indiana

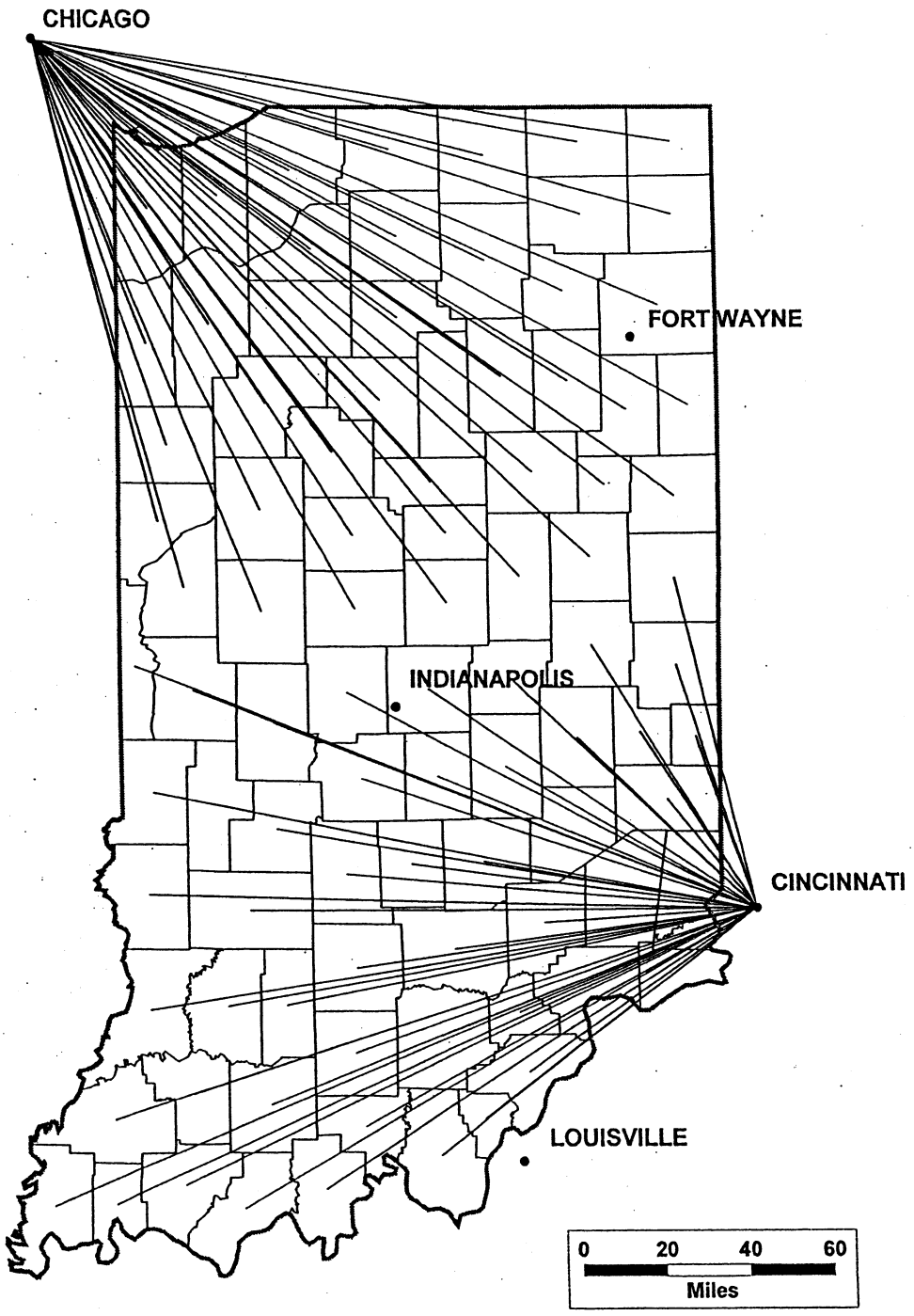


Figure 6-5. Market Areas for DHL Parcels in Indiana

Chapter 7

ASSIGNMENT OF TRAFFIC AND EVALUATION

This chapter describes the procedures that were used for traffic assignment in this study. To place this in the proper context, we have distributed flows to a series of origins and destinations. These are gross estimates of interaction between states and counties without any clear indication of the paths, routes, or highways that these flows would take. Put another way, the flows from our gravity model lack geographic detail. It is the purpose of traffic assignment to provide the geographic detail so that we know those portions of the network over which these flows take place.

There are numerous analytical methods for assigning traffic to a network. The simplest of these methods is referred to as "all or nothing" assignment. This approach assumes that all of the traffic going between any origin-destination pair will travel by the shortest (time, distance, or other metric) path over the network between the two places. Now if we increase this to include all origins and all destinations, and follow the same procedure, then we have assigned our traffic using the "all or nothing" approach to traffic assignment.

This method of traffic assignment has its share of critics. Most of these are concerned with the application of this approach in urban areas where a multitude of possible routes are available. It should be apparent that whatever we use as a metric of spatial separation, e.g., cost, distance, or travel time, this approach will select the route for all flows between an origin and destination for which this is a minimum. Obviously, reality is different and the number of routes that will see some use is a function of the total number of such routes that are available. This is the basis for part of the criticism, although one could also attack the methodology on the grounds that not everyone is attempting to minimize their "friction." Some may want a scenic route, others may want a rural route with less traffic, while others may prefer a bypass that is longer. From a modeling standpoint we can't incorporate the motives of all travelers in our modeling.

When the modeling pertains only to motor carriers functioning over a large area, it is apparent that the "all or nothing" assignment procedure tends to reflect the behavior of those carriers the best. It would be possible to add congestion and capacity effects to the modeling, but the reality here is that these vehicles tend to try to minimize travel time. Even if we added more variables to the assignment modeling, these carriers would still tend to use the Interstate

Highway System whenever they can. If their shipments are originating or terminating off the Interstate, they will try to stay on that system until they are off of it for the least amount of time.

Transport Costs

Traffic assignment requires the construction of a network over which shipments must move. This network connects all origins on the network to all destinations and includes the "cost" of movement over the links or segments of the network. In general, cost studies over the years have tended to use distance, travel time, or traffic flow functions related to distance or travel time for this cost measure. This project used travel time as its initial measure of travel cost. For shipments over very large areas, such as the United States, travel time is rarely known. Instead it is approximated by the use of the following:

$$\text{Travel time} = (\text{link length})/ (\text{posted speed})$$

Here the length is in miles and the speed is in miles per hour. This results in travel time being measured in hours or parts of hours.

As was true in the earlier study, this study made use of a conversion of the speeds in an attempt to get at user perception of speeds better than the above formulation allows. In other words, drivers generally exceed the speed limit. We therefore modified the previously obtained speeds by taking that value and modifying it as follows:

$$\text{NewSpeed} = (\text{Posted Speed} + (2 * \sqrt{(70 - \text{Posted Speed})}$$

This results in the following changes:

Old Speed	New Speed
70.00	70.00
65.00	69.47
60.00	66.32
55.00	62.75
50.00	58.94
45.00	55.00
40.00	50.95
35.00	46.83

Travel time was redefined as:

$$\text{Travel time} = (\text{Link length} / \text{New Speed}) * 60$$

This yields an estimate of travel time in minutes for all links of the network analyzed, and for

those links of the interstate and for those in the study area that had no such value in the database. Although travel times are available for segments of the Indiana Road Inventory, the above approach was also used for these segments for consistency.

Highway Assignment Results

The assignment procedure used was "All or Nothing," without any constraint in the form of link capacity. This resulted in the bulk of the traffic being assigned to the Interstate Highway System and only traffic moving toward the counties off of that system using the other highways, in most cases. There are of course exceptions to this statement.

Perhaps the easiest way to discuss this is to refer the reader to the figures on the following two pages. The first of these figures shows the volume of traffic on an annual basis for the entire United States in 1997 (see Figure 7-1). There is a heavy concentration of flows out of Texas reflecting primarily heavy volumes of petroleum and petrochemicals. The heavy volumes between Wisconsin and Illinois reflect not only movement between those states, but also the role of O'Hare Airport in the airfreight and parcel flows in that region. Some of this could also be the result of the modeling attempting to generate the overall short shipping distances that are used as constraints on the flow model.

The distribution of flows within Indiana for 1997 is more clearly displayed in Figure 7-2. As one would expect the flows are heaviest on the Interstate Highway System within the state. The heaviest volumes here are on I-65 between Chicago and Indianapolis. The lowest interstate volume is across the I-64 corridor in Southern Indiana. Volumes are lower than expected on I-69 between Fort Wayne and Indianapolis; this is particularly true for the southern end of that corridor. This may be attributable to the fact that commodity traffic coming into the state from Canada may not be included in the data used here, i.e., only domestic shippers are surveyed.

The accuracy of the generated truck flows is an issue here. The flows in the Indiana map were compared with truck counts for 1997 based on data in the Indiana Road Inventory. The relationship across all segments for which data were available is .65, which means that the models capture about 42% of the variation in the count data. While not as high as might be desirable it should be noted that some of the vehicles counted near urban areas might not be commodity flows as such, e.g., local lumber, stone, brick, and block moves, garbage truck flows, and similar large heavy vehicles would be in any count data.

The Indiana DOT also supplied the project team with vehicle counts for 2002 in a GIS point format. The data were not complete, i.e., only some of the counties have values. A sample of 59 segments appears as Table 7-1 and a map of the sample locations follows that (Figure 7.3). As can be seen the segments range from high volume Interstate links to low volume state highways, and are distributed around the state proportionally to the sampling completed to date.

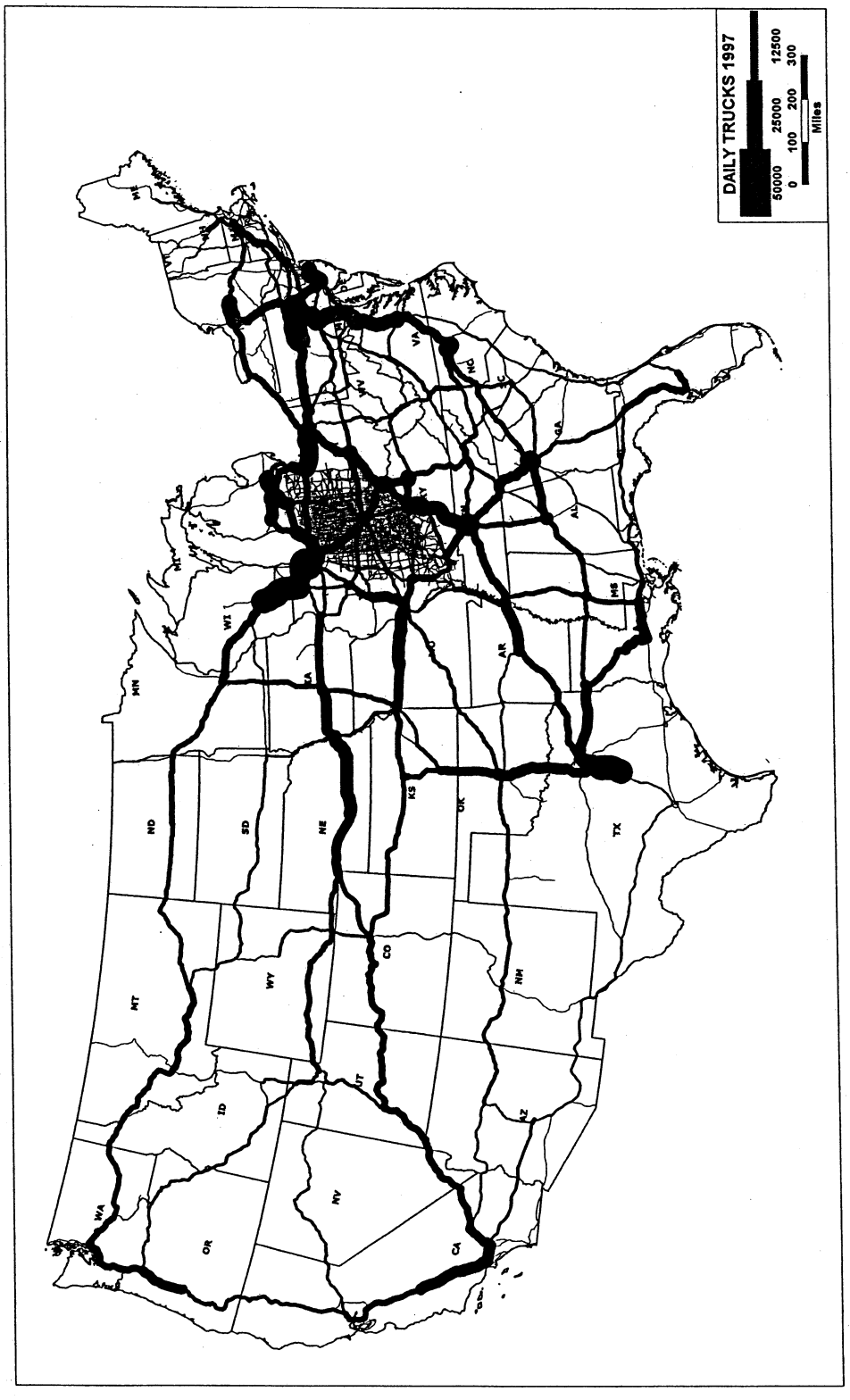


Figure 7-1. US Daily Truck Volumes for 1997

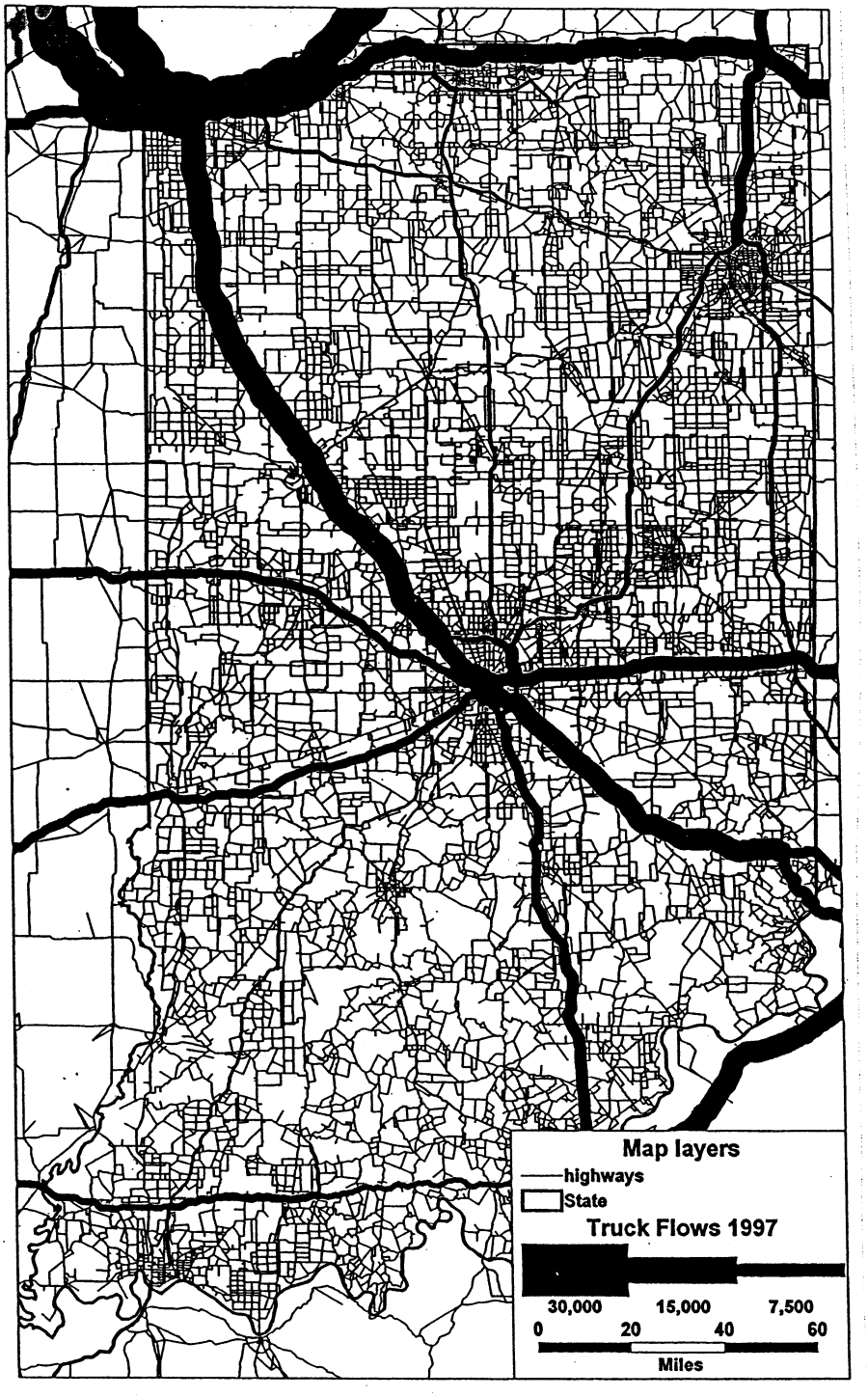


Figure 7-2. Indiana Daily Truck Volumes for 1997

Taking the count data as the dependent variable, the estimated flow volumes based the fully-constrained gravity model followed by an "all-or-nothing" assignment served as an independent variable. The level of statistical explanation was considerably higher than the research team expected. This was slightly in excess of 89 percent (with an r^2 value of .893). The relationship is illustrated in the Figure 7-4.

It is interesting to note that the model developed was of the form:

2002 Counts = 57.8 + 1.125 (1997 Model estimates)

In effect what the model is suggesting is that the values for 2002 have increased roughly 12.5% since 1997. This is a reasonable level of increase given the downturn in the economy in the late 1990s and the subsequent recovery. This difference may also be attributable to empty trucks, which are not incorporated here.

Of course in the sampling process an attempt was made to exclude links with no flow based on the modeling. But there were very few cases where zero flow estimates occurred. In such cases the counts were also very low as represented by some of the segments included here. The major source of variation here is on the Interstate links and for these the level of relationship is reasonably high.

Illustrations of the flow volumes for 2015 and 2030 appear in the following chapter. Although there are substantially higher flow volumes for those future years, the dominant corridors found in the 1997 analysis continue to be the same for the forecast years. This will be discussed in more detail in Chapter 8.

The Rail Flows

The basic network used in the study was described in Chapter 1. It is the 1:2,000,000 rail network prepared by the Federal Railroad Administration as revised to take into account changes due to abandonments and some new construction. It consists of 12,815 segments representing a national network of 148,996 route miles, not track miles.

We used travel time as a measure of the cost of transport in the highway assignment procedure. This is reasonable in that most users of the highway system are interested in minimizing this metric. That is not the case in the rail sector since, for the most part, the railroads are more interested in maximizing their profits. Although this would also usually involve minimizing some measure of transport cost, this is not done unless the traffic is moving entirely on one rail company's lines. In all other cases the railroads involved in the moves must "divide" the total revenue obtained from the move. These divisions, as they are called, are

Table 7-1. Sampled Locations for Model Evaluation

ID	LONGITUDE	LATITUDE	County	Route_Name	Description	Total MU-Trk
15809	-86114336	41173850	Marshall	50-S-331-0-01		81.00
16449	-86433320	41671912	St. Joseph	71-S-002-0-01		2566.00
16641	-86348070	41618607	St. Joseph	71-S-023-0-01		226.00
16777	-86263870	41624870		71-U-020-0-01		5419.00
16929	-86339522	41711237	St. Joseph	71-U-031-0-01		3353.00
17297	-86176822	41566309	St. Joseph	71-S-331-0-01		319.00
17697	-86078323	41662659	St. Joseph	71-S-933-0-01		207.00
18121	-85770500	38498201		10-I-065-0-01		11970.00
18153	-85778462	38545785		10-I-065-0-01		11330.00
18313	-85583875	38707871	Jefferson	39-S-056-0-01		106.00
18409	-85453898	38731948	Jefferson	39-S-056-0-01		378.00
18985	-85944978	39269941	Bartholomew	03-U-031-0-01		726.00
19009	-85864026	39202543	Bartholomew	03-U-031-0-01		496.00
19345	-85516685	38831838	Jefferson	39-S-250-0-01		10.00
19473	-85570786	39309396	Decatur	16-S-003-0-01		754.00
19553	-85731291	39523924		73-I-074-0-01		6712.50
19729	-85479612	39383552	Decatur	16-S-003-0-01		677.00
20233	-85234910	39286934	Ripley	69-S-229-0-01		12.00
20417	-85043078	39019267	Dearborn	15-U-050-0-01		1066.00
21025	-84934179	39124841	Dearborn	15-S-048-0-01		53.00
21953	-85486266	39851750		33-I-070-0-01		12830.00
22393	-85549139	40499488		27-I-069-0-01		10002.00
22401	-85535202	40612790		27-I-069-0-01		7080.00
23961	-84964464	40533707	Jay	38-U-027-0-01		1045.00
25681	-85771890	41667588	Elkhart	20-U-020-0-01		1769.00
26401	-85364647	41395766	Noble	57-S-008-0-01		288.00
26409	-85307693	41205518	Allen	02-U-033-0-01		1086.00
26657	-85014589	40917453	Adams	01-U-027-0-01		1911.00
26793	-85103449	41183165		02-I-069-0-01		8528.00
27393	-85055663	41529974		76-I-069-0-01		6286.00
27417	-85035983	41661540		76-I-069-0-01		7960.00

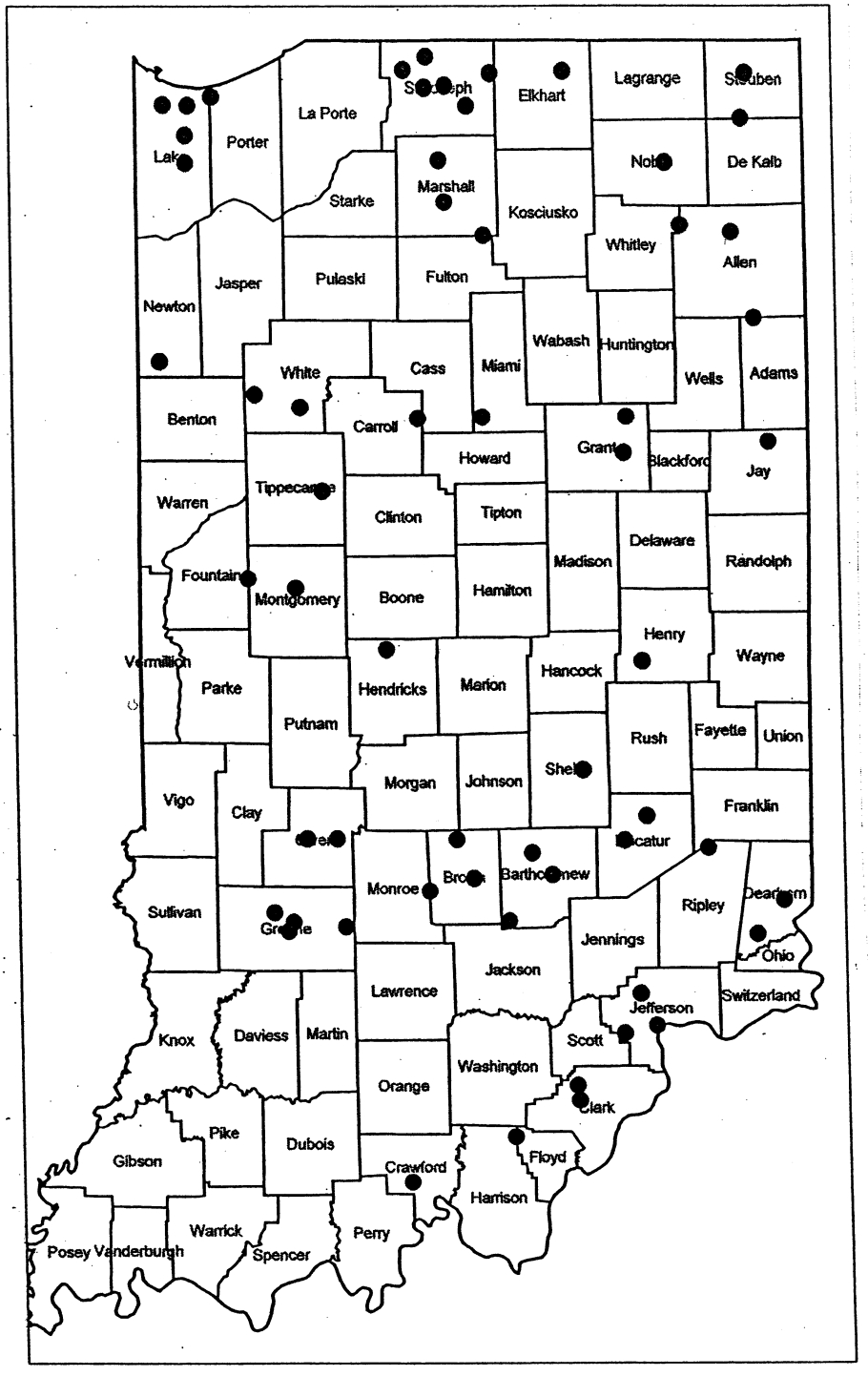


Figure 7-3. Map of Sampled Locations

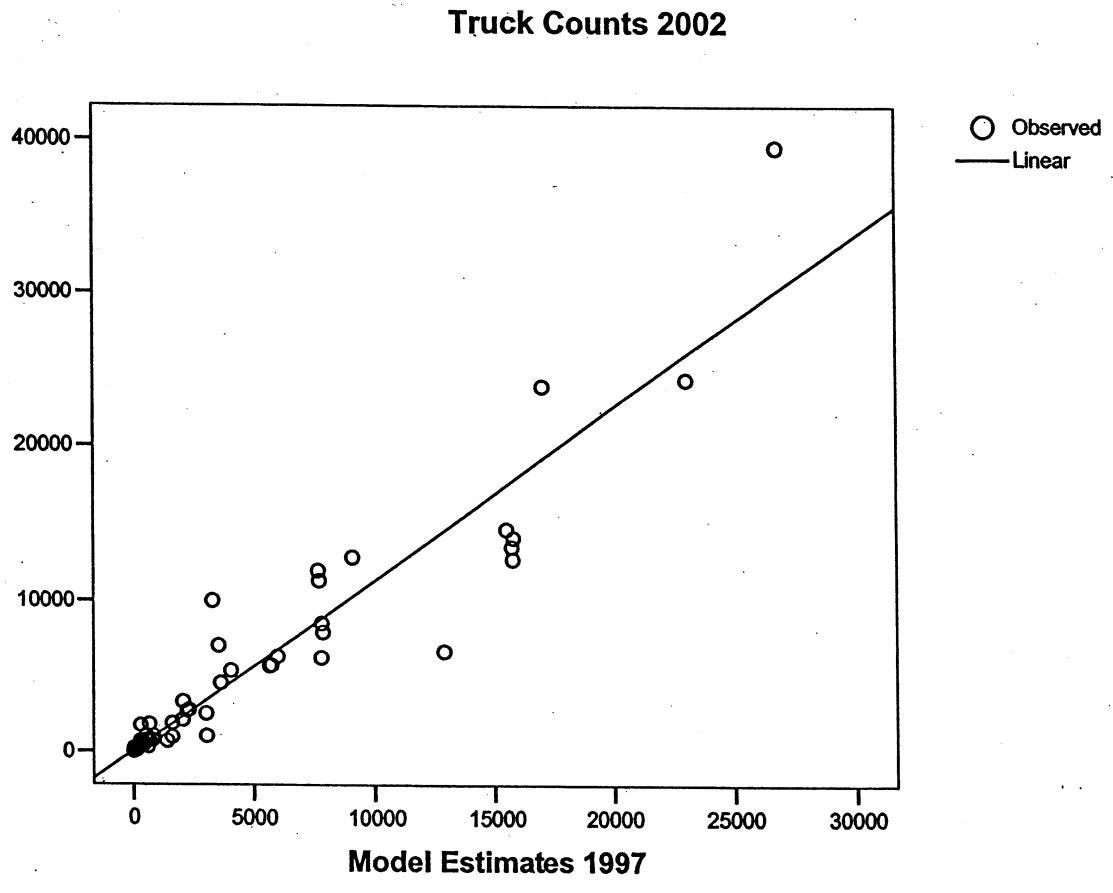


Figure 7-4. Relationship of Counts to Model Estimates

usually based on the respective miles that the traffic is on the various rail carriers' lines. As a result it is to a railroad's advantage to keep the traffic on their system as long as they can accruing more and more miles before transferring it to another rail carrier. One exception to this involves that portion of the traffic that is originating or terminating on short line railroads. In this latter case the short line railroad gets a set fee whether the traffic originated one mile from a junction with a receiving carrier or 50 miles from that location. It is not immediately apparent what type of metric can be used to capture this situation.

It should be apparent that railroad flows would not necessarily follow a minimal path routing and some alternative approach is necessary. In the 1997 report some consideration was given to a procedure that would keep traffic on a rail company's lines as long as possible before passing it off to another carrier. This approach used turning penalties in the assignment algorithm to ensure this type of routing, but problems with the network in the form of duplicate digital lines resulted in failure of this approach.

Instead of that approach the earlier study noted the tendency of railroads to use the same main lines. Although there is some desire on the part of rail carriers to minimize the length of haul, this is minor in comparison to their desire to use mainline trackage even though secondary lines may be more direct. The question was how to represent this tendency with the rail data available on the digital network. Track condition plays a part in such decisions, but this is a very dynamic variable that would change more frequently than the database available. It seemed a new measure of spatial separation was necessary. The new measure would still incorporate an attempt to minimize length of haul, but would also pick those routes that the railroads tend to use.

Short line or regional railroads that originate or terminate traffic are not important in this methodology, since the origin and destination of shipments must be reached. In other words these moves can be replicated by any methodology regardless of the cost attached to it simply because the end nodes of these moves are automatically selected, i.e., there is no alternative.

The measure finally used in the earlier study had the form

$$I = (L\ (1/(D + 1)))$$

where I = the index of spatial separation;
L = the length of the line segment of the network; and,
D = the traffic density of the line in millions of gross ton-miles per year.

The measure diminishes the length of the line segments by dividing the segment by its traffic density, i.e., by gross ton-miles per mile. Typical traffic density values vary from 0 to about six million gross-ton miles per mile of line.

If we have five route segments of 100 miles in length each with traffic density ranging from 0 to 1 to 2 to 3 to 4, the index of spatial separation would be 100, 50, 33, 25, and 20. When used on lines with high traffic density these routes "become shorter" and are always selected. Lines of low traffic density, do not become "longer" since their traffic density always has a unit value added to it. Lines of 0 traffic density would become lines of 0 length, if it were not for the correction factor.

The transport cost matrix used for assigning the rail traffic was defined using the length-density index described above. In the earlier project, it was noted that there was a need for a major research project that would evaluate a broad array of indices and methods for assigning rail traffic to a rail network. Such a study would require the existence of a set of actual flows, referred to in the highway case as target flows, but these are not generally available in the rail case. The carload waybill sample is not available for SCTG commodities so that even if the STCC could be assigned they would not provide a comparable data set for evaluating the accuracy of the rail flow assignments here.

Selection of the Rail Assignment Approach

There is a certain intuitive appeal to the earlier routing method that would keep traffic on a railroad's lines longer in order to maximize their share of the divisions from various moves. On the other hand, the tendency for railroads to use main lines with high volumes (the high density lines) also has some logical appeal.

It has been noted in another context here that we should utilize methods that are flexible to changes in circumstances. If we use the first approach then there is a reliance on the current set of rail carriers. Had we used this approach in the earlier study, the breakup of Conrail would have all but destroyed the flow assignments. We see no reason to assume that the current set of carriers will continue, but more than likely the heavier volume lines will continue to be used even if certain carriers fall out of the system. As a result the assignment process used here is the second approach, i.e., the length-density approach.

A map of the rail flows for the United States as generated by the model here appears as Figure 7-5 and an enlargement of these flows for Indiana appears in Figure 7-6. As is true in the highway case, the major corridors remain the same into the future but the volumes increase. This will be more apparent in Chapter 8.

Flows were also generated for rail and water for the 145 nodes of the original analysis; the five airports included were excluded from this part of the analysis. The flows were generated for rail flows and water flows for all forty-one commodity groups examined here. Digital versions of these are included as part of the deliverables from the project. These files yield the origin, destination and volume of flow for each of these modes by commodity group.

Water flows are not as easy to deal with. Our best estimates are for the tonnage volume moving to Indiana counties by water primarily. In most cases these are most significant when we begin to consider them as highway flows. Unfortunately the data are not so refined as to give the modelers a clear idea of whether these are coming into Indiana via Lake Michigan and the state's ports on that shore, or whether they are coming into the state via the Ohio River ports noted in Chapters 1 and 6. Nevertheless, the estimated 1997 commodity flows to Indiana counties is being provided to the project sponsors in digital format and the forecasted flows for 2015 and 2030 are also being provided. It may be possible for those interested in these flows to infer the Indiana port through which they entered the state.

Pipeline data were collected and treated as one of the modes of interest here, but the State has very little impact on this sector and as a result the data were not treated separately.

A Precautionary Note

It should be noted that while our approach to modal split analysis and assignment discussed in Chapters 6 and 7 have been used in the past, some believe this limits the utility of the models developed. In other words the approach used assumes that modal shares will not change a great deal from historical trends. As a result if the State of Indiana initiates some type of major fuel tax with the objective of diverting truck traffic onto the railroads, the present type of analysis will not enable us to examine such questions. The modal shares are independent of the cost of transport and therefore changes in these costs will not have any impact on the modal shares.

In order to develop an approach to modal split that could evaluate such a question a cost based logistic model would have to be used and this was beyond the scope of the study.

The approach used here would enable state planners to examine the role of changes in employment on traffic, so it still has utility in that regard, although it would not result in a shift of traffic from one mode to another.

The approach used here also has value in examining the impacts of routing as a result of constructing a new highway, or improving an existing highway. It can also be used for various types of economic and policy analysis.

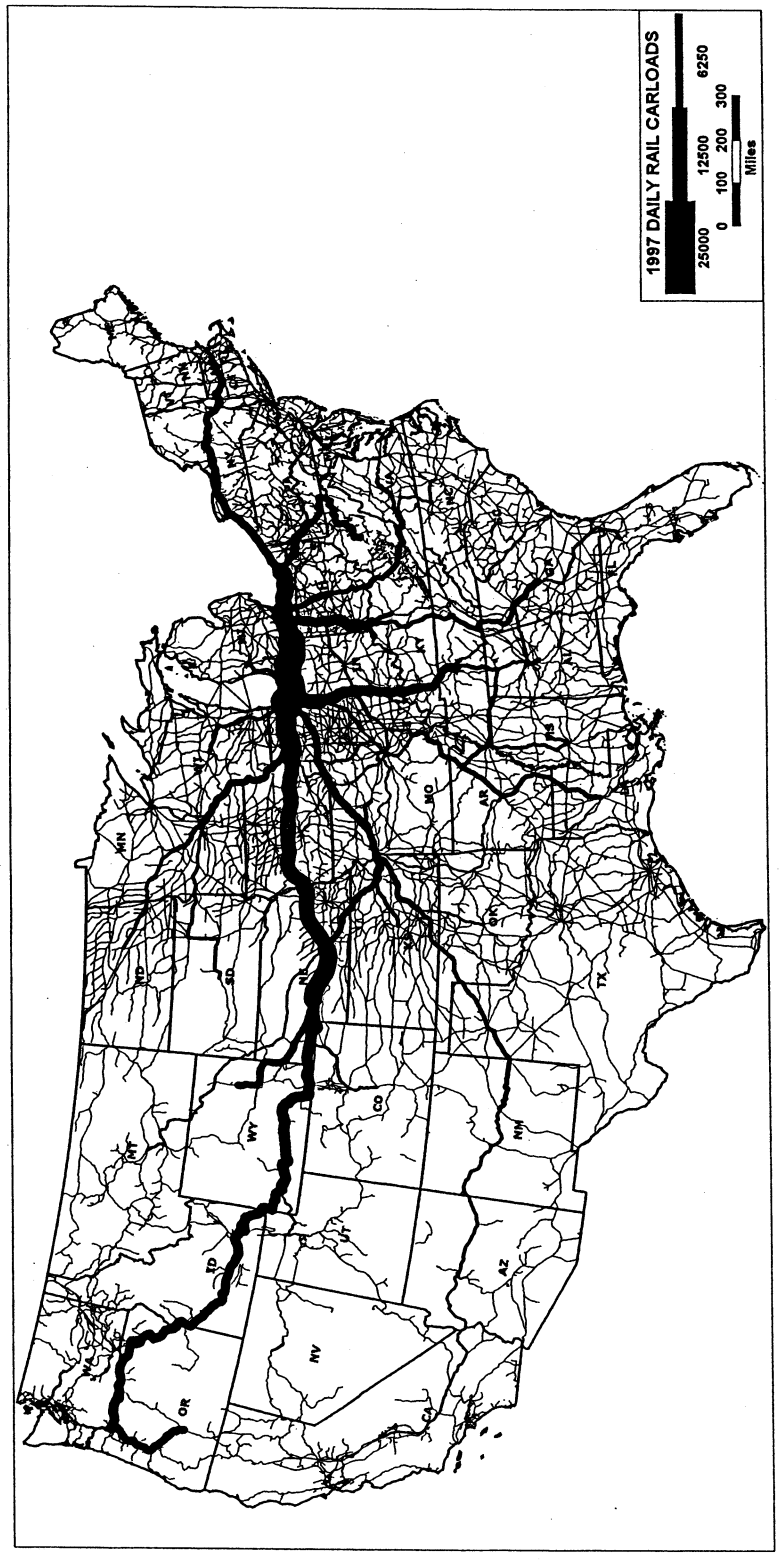


Figure 7-5. US Daily Rail Volumes for 1997

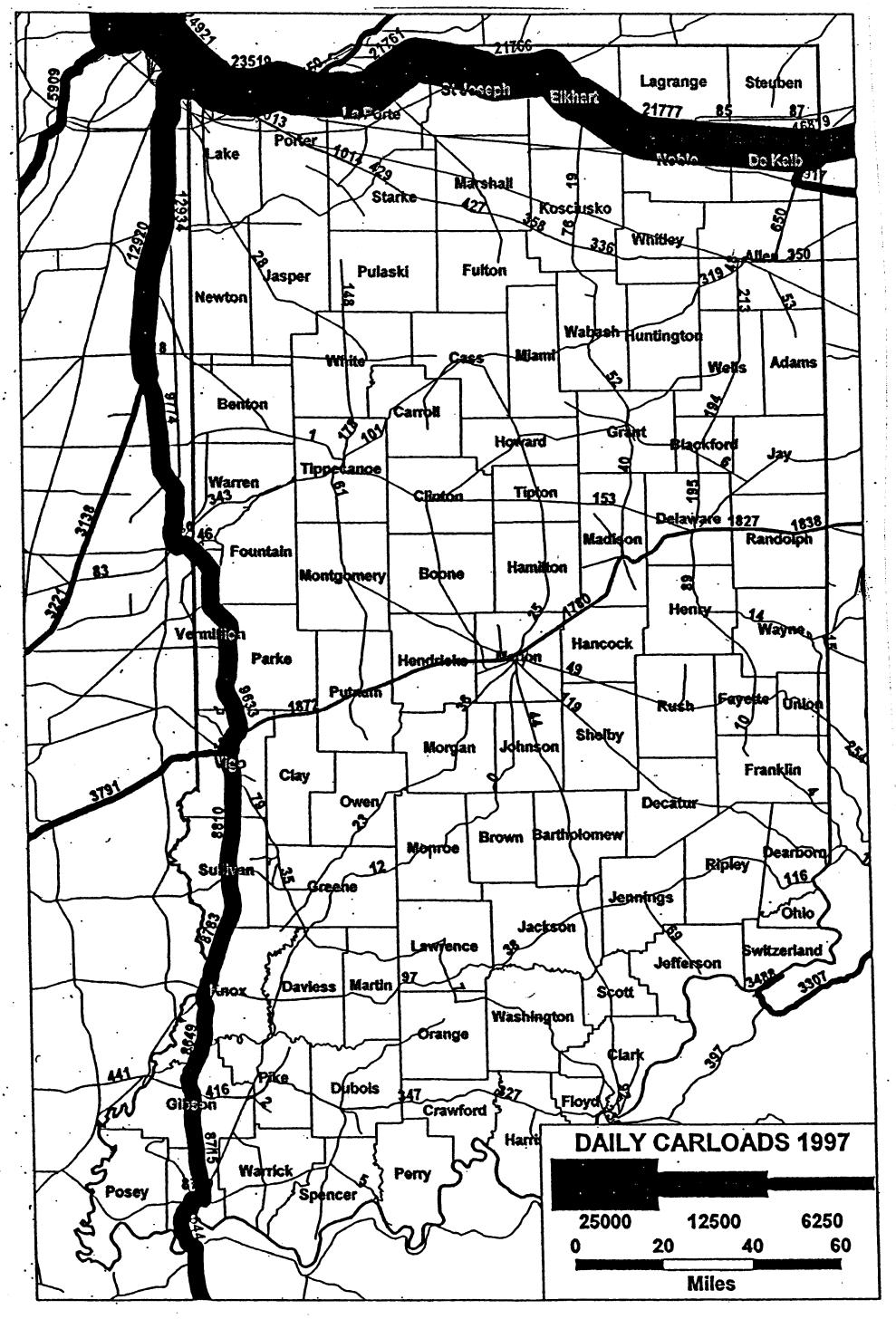


Figure 7-6. Indiana Rail Flows 1997 (modeled)

Chapter 8

FORECASTS FOR 2015 AND 2030

A primary objective of this study was the forecasting of traffic levels for 2015 and 2030. There are numerous ways that this can be accomplished. A standard way of doing short term forecasts involves simply trend extrapolation. This might better be referred to as a projection since one literally projects the trend line into some future time. The projection is sometimes done with a ruler, or more elegantly with a regression model.

In the earlier study that was undertaken we made use of employment projections. In the simplest case let us say that we have found each ton of some commodity shipped appears to be related to .5 employees in some related industrial sector. We project employment using some method and find that the industry at some future date will have 1000 workers in some area of interest. Since we know that one employee will produce 2 tons per year we assume that the 1000 workers will produce shipments of 2,000 tons.

The major problem inherent in the above formulation should be apparent: it assumes that there will be no changes in the productivity of employees over the projection period. Whatever an employee was producing in the base year is the same as what she will produce in the forecast year. This is viewed as unacceptable by many researchers and practitioners in the modeling field. You can look at any one of a number of industries and it is apparent that mechanization, robotics, and computerization have significantly changed worker productivity, so the approach described is unacceptable since it does not incorporate such productivity changes.

In order for this project to incorporate the role of changes in employment the Indiana Department of Transportation supplied the study team with gross county-level employment projections for the year 2015 and the year 2030. By gross we simply mean that the forecasts are not industry specific, but are forecasts of total employment in the county. One could obviously raise some questions regarding the validity of the assumption that employment will increase uniformly across all industries, but this is what we have assumed here. The primary argument against this is due to globalization. We have seen substantial changes in employment levels in the manufacturing sectors and there is no indication that this trend will change in the near future.

Changes in employment for areas beyond the borders of Indiana were not made available. We have no other source for these and we have made the assumption that employment beyond

Indiana will increase or decrease at the same level as the population will change. The source of the population forecasts is the U.S. Bureau of Census.

Future Traffic Production

Table 8-1 on the following page gives the estimates of the change in employment used for 2015 and 2030. For Adams County we are assuming that employment will increase by .1213 or 12.13% between 2000 and 2015. It is expected that the county's employment will increase by 10.81% during the period from 2015 to 2030.

This does not get us around the problem of changes in productivity. For this we have made use of labor productivity changes derived from Indiana's REMI model. That model gives growth factors for labor productivity changes in several employment sectors of Indiana. The values derived cover numerous employment sectors that are not of interest in this study, e.g., the service industries are also included. Therefore the values of interest here appear in Table 8-2.

It may be instructive and clarify the use of the above if an example is provided of the use of these values. Let us assume that we have an industry and SCTG sector for which the relationship between tons moved and employment is as follows:

Tons = 2 * employment

We will assume that employment is 1000 in the area that we are looking at. This would suggest that the current level of this SCTG from this area is 2000 tons (assuming the model is perfect). Now we expect an increase in employment of 20% between now and 2030 or a growth factor 1.20 for this employment sector. So the 1000 employees will be 1200 employees by 2030 and the tonnage shipped will increase to 2400 tons. But we have not yet considered any changes in labor productivity. Let us assume that productivity will increase by 91%, or by a growth factor of 1.91. This means that the expected tons will actually increase from the 2400 tons to 4584 tons.

For the year 2015 we would assume half of the increase in employment to 1100 employees with a tonnage of 2200 without the productivity increase. The total increase of 2,184 tons due to productivity is divided proportionally based on employment and this suggests that 1048 tons accompanied the growth to 2015 (48%) and the remaining 1136 tons (52%) came during the next fifteen years. Therefore, the tonnage of the SCTG for 2015 would be 2200 plus the 1048 or a total of 3248 tons. This should make it apparent that changes in productivity are quite significant in terms of the total amount of a commodity that will be moved at some future point in time. The forecasts of future commodity traffic production for 2015 and 2030 appear in the appendices E and F.

Table 8-1 Proportional Increases in Employment by Area

Locale	2000-2015	2015-2030
Alabama	1.0486	1.0453
Arizona	1.4609	1.4292
Arkansas	1.1105	1.0914
California	1.1846	1.1576
Colorado	1.1740	1.1471
Connecticut	1.0675	1.0146
Delaware	1.1835	1.0919
District of Colombia	-0.1149	-0.1440
Florida	1.3267	1.3528
Georgia	1.2497	1.1747
Idaho	1.2597	1.2083
Illinois-Chicago	1.0546	1.0256
Illinois- Springfield	1.0546	1.0256
Indiana - Adams	1.1213	1.1081
Indiana - Allen	1.1152	1.1033
Indiana - Bartholomew	1.1119	1.1006
Indiana - Benton	-0.0316	-0.0329
Indiana - Blackford	-0.0803	-0.0873
Indiana - Boone	1.3460	1.2570
Indiana - Brown	1.0258	1.0251
Indiana - Carroll	1.0680	1.0636
Indiana - Cass	-0.0054	-0.0055
Indiana - Clark	1.1264	1.1122
Indiana - Clay	1.0302	1.0293

Table 8-1, Continued

Indiana - Clinton	1.0638	1.0600
Indiana - Crawford	1.1917	1.1606
Indiana - Daviess	1.0904	1.0828
Indiana - Dearborn	1.2626	1.2080
Indiana - Decatur	1.0441	1.0422
Indiana - DeKalb	1.1507	1.1310
Indiana -Delaware	1.0596	1.0563
Indiana - Dubois	1.0798	1.0739
Indiana - Elkhart	1.1170	0.1047
Indiana - Fayette	-0.0481	-0.0506
Indiana - Floyd	1.1130	1.1015
Indiana -Fountain	1.0157	1.0154
Indiana - Franklin	1.1356	1.1193
Indiana - Fulton	1.0282	1.0274
Indiana - Gibson	1.1114	1.1002
Indiana - Grant	-0.0934	-0.1031
Indiana - Greene	1.0000	1.0000
Indiana - Hamilton	1.3766	1.2736
Indiana - Hancock	1.3311	1.2487
Indiana -Harrison	1.2538	1.2024
Indiana - Hendricks	1.5767	1.3658
Indiana - Henry	-0.0588	-0.0625
Indiana - Howard	1.0241	1.0236
Indiana - Huntington	1.1117	1.1004
Indiana - Jackson	1.0376	1.0362
Indiana - Jasper	1.0667	1.0625

Table 8-1, Continued

Indiana - Jay	-0.0277	-0.0286
Indiana- Jefferson	1.0790	1.0732
Indiana - Jennings	1.1263	1.1122
Indiana - Johnson	1.3637	1.2667
Indiana - Knox	-0.0501	-0.0528
Indiana - Kosciusko	1.0670	1.0628
Indiana - LaGrange	1.1358	1.1195
Indiana - Lake	1.0189	1.0185
Indiana - LaPorte	1.0127	1.0126
Indiana - Lawrence	-0.0146	-0.0149
Indiana - Madison	1.0338	1.0327
Indiana - Marion	1.0492	1.0469
Indiana - Marshall	1.1088	1.0981
Indiana - Martin	-0.0470	-0.0494
Indiana - Miami	-0.0486	-0.0511
Indiana - Monroe	1.1422	1.1244
Indiana - Montgomery	1.0557	1.0527
Indiana - Morgan	1.2179	1.1789
Indiana - Newton	1.0149	1.0147
Indiana - Noble	1.0842	1.0777
Indiana - Ohio	1.1028	1.0932
Indiana - Orange	-0.0020	-0.0020
Indiana - Owen	1.0856	1.0788
Indiana - Parke	1.0082	1.0081
Indiana - Perry	-0.0413	-0.0431

Table 8-1, Continued

Indiana - Pike	1.0541	1.0510
Indiana - Porter	1.0574	1.0543
Indiana - Posey	1.0657	1.0615
Indiana - Pulaski	1.0526	1.0499
Indiana - Putnam	1.0589	1.0556
Indiana - Randolph	-0.0282	-0.0291
Indiana - Ripley	1.0770	1.0715
Indiana - Rush	-0.0417	-0.0435
Indiana - St. Joseph	1.0545	1.0516
Indiana - Scott	1.0559	1.0530
Indiana - Shelby	1.0186	1.0182
Indiana - Spencer	-0.0062	-0.0064
Indiana -Starke	-0.0165	-0.0168
Indiana - Steuben	1.0527	1.0501
Indiana - Sullivan	1.0522	1.0495
Indiana - Switzerland	1.2387	1.1927
Indiana - Tippecanoe	1.1927	1.1616
Indiana - Tipton	-0.0049	-0.0049
Indiana - Union	1.0363	1.0346
Indiana - Vanderburgh	1.0817	1.0755
Indiana - Vermillion	-0.0457	-0.0481
Indiana - Vigo	1.0351	1.0339
Indiana - Wabash	-0.0294	-0.0304
Indiana - Warren	1.0560	1.0531
Indiana - Warrick	1.1217	1.1085
Indiana - Washington	1.0879	1.0808

Table 8-1, continued

Indiana - Wayne	-0.0601	-0.0640
Indiana - Wells	1.1172	1.1049
Indiana - White	1.0214	1.0208
Indiana - Whitley	1.1150	1.1031
Iowa	1.0342	-0.0235
Kansas	1.0611	1.0306
Kentucky - Louisville	1.0766	1.0468
Kentucky - Lexington	1.0766	1.0468
Louisiana	1.0458	1.0276
Maine	1.0894	1.0160
Maryland	1.0722	1.1311
Massachusetts	1.0645	1.0375
Michigan - Detroit	1.0665	1.0090
Michigan - Grand Rapids	1.0665	1.0090
Minnesota	1.1522	1.1125
Mississippi	1.0597	1.0259
Missouri	1.0848	1.0594
Montana	1.1078	1.0454
Nebraska	1.0451	1.0177
Nevada	1.5304	1.4002
New Hampshire	1.1787	1.1303
New Jersey	1.1000	1.0591
New Mexico	1.1223	1.0285
New York	1.0300	-0.0035
North Carolina	1.2437	1.2215
North Dakota	-0.0110	-0.0450

Table 8-1, continued

Ohio - Cleveland	1.0249	-0.0073
Ohio - Columbus	1.0249	-0.0073
Ohio - Cincinnati	1.0249	-0.0073
Oklahoma	1.0612	1.0687
Oregon	1.1729	1.2046
Pennsylvania	1.0350	1.0045
Rhode Island	1.0870	1.0118
South Carolina	1.1571	1.1091
South Dakota	1.0558	1.0044
Tennessee	1.1429	1.1351
Texas	1.2750	1.2532
Utah	1.2462	1.2524
Vermont	1.1057	1.0575
Virginia	1.1961	1.1604
Washington	1.1792	1.2409
West Virginia	1.0080	-0.0564
Wisconsin	1.0968	1.0456
Wyoming	1.0693	-0.0095

Source: Indiana Department of Transportation

Table 8.2 Labor Productivity Growth Factors for Indiana, 2002-2030

SCTG Code	Commodity Group	Growth 2000- 2015	Growth 2000-2030
01	Live Animals and Fish	1.27	1.54
02	Cereal Grains	1.27	1.54
03	Agricultural Products Except Live Animals, Cereal Grains, and Forage products	1.27	1.54
04	Animal Feed and Products of Animal Origin	1.27	1.54
05	Meat, Fish, Seafood, and Preparations	1.31	1.62
06	Milled Grain Products and Preparations, and Bakery Products	1.31	1.62
07	Prepared Foodstuffs, Fats, and Oils	1.31	1.62
08	Alcoholic Beverages	1.48	1.96
09	Tobacco Products	1.48	1.96
10	Monumental or Building Stone	1.02	1.03
11	Natural Sands	1.02	1.03
12	Gravel and Crushed Stone	1.02	1.03
13	Non-metallic Minerals	1.34	1.68
14	Metallic Ores	1.46	1.91
15	Coal	1.11	1.22
17	Gasoline and Aviation Turbine Fuel	1.60	2.19
18	Fuel Oils	1.60	2.19
19	Products of Petroleum Refining and Coal Products	1.60	2.19
20	Basic Chemicals	1.35	1.71
21	Pharmaceutical Products	1.35	1.71
22	Fertilizers and Fertilizer Materials	1.35	1.71
23	Chemical Products and Preparations	1.35	1.71
24	Plastics and Rubber	1.64	2.29
25	Logs and Other Wood in the Rough	1.30	1.60
26	Wood Products	1.30	1.60
27	Pulp, Newspaper, Print, and Paperboard	1.34	1.68
28	Paper or Paperboard Articles	1.34	1.68
29	Printed Products	1.10	1.20
30	Textiles, Leather, and Articles	1.55	2.10
31	Non-metallic Mineral Products	1.34	1.68
32	Base Metal in Primary or Semi-finished Forms and in Basic Shapes	1.63	2.27
33	Articles of Base Metal	1.63	2.27
34	Machinery	1.82	2.64
35	Electronic and Other Electrical Equipment and Components; Office Equipment	7.95	14.95
36	Motorized Vehicles	2.13	3.26
37	Transportation Equipment	1.58	2.16
38	Precision Instruments and Apparatus	1.43	1.97
39	Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs	1.58	2.17
40	Miscellaneous Manufactured Products	1.43	1.97
41	Waste and Scrap	1.43	1.97
43	Mixed Freight	1.43	1.97

Future Attractions

The same employment increase factors and productivity increases were assumed to influence the consumption side of the analysis. That is it was generally assumed that the increases in shipments produced would be met with an increase in the shipments received. There is nothing seriously wrong with such an assumption except that some of the increased production may very well be exported. We have no way of knowing this with any certainly and therefore we are assuming that the total increase in production is consumed by the domestic market.

Values for productions and attractions for the forecast years of 2015 and 2030 appear in appendices E and F of this report.

The Future Flows

Using the models developed for productions and attractions we next inserted estimates of the employment variables assuming the growth in employment and productivity noted earlier for 2015 and 2030. This was followed by the use of the calibrated fully-constrained gravity model assuming the parameters from the earlier study held. This gave us the distributed total traffic for the two forecast years. The historical patterns of modal choice were again used and the traffic was divided among modes once again for each year.

Maps of the forecasted truck traffic for Indiana in 2015 and 2030 appear as Figures 8-1 and 8-2. Similar maps appear for forecasted rail traffic for Indian in 2015 and 2030 appear as Figures 8-3 and 8-4.

Examining the maps should reveal that the major corridors in 2015 and 2030 in both the truck and the rail case are very similar. This is to be expected since we have done nothing to change the major corridors in a relative sense. Speeds and travel times are assumed to be the same in the truck case and density per unit length is also assumed to be the same in the rail case. In reality the flows are changing more in the highway case than in the rail case as can be seen by comparing the legends on the map. Fine detail can be achieved by using some of the methods discussed in Chapter 9 on Implementation.

We have some confidence in the highway forecasts since the model used has been evaluated on the 1997 data and found to be very good. We have not performed a similar evaluation on any of the rail modeling since we have no actual data set to use for such a test. Therefore, we offer the rail forecasts with this caveat.

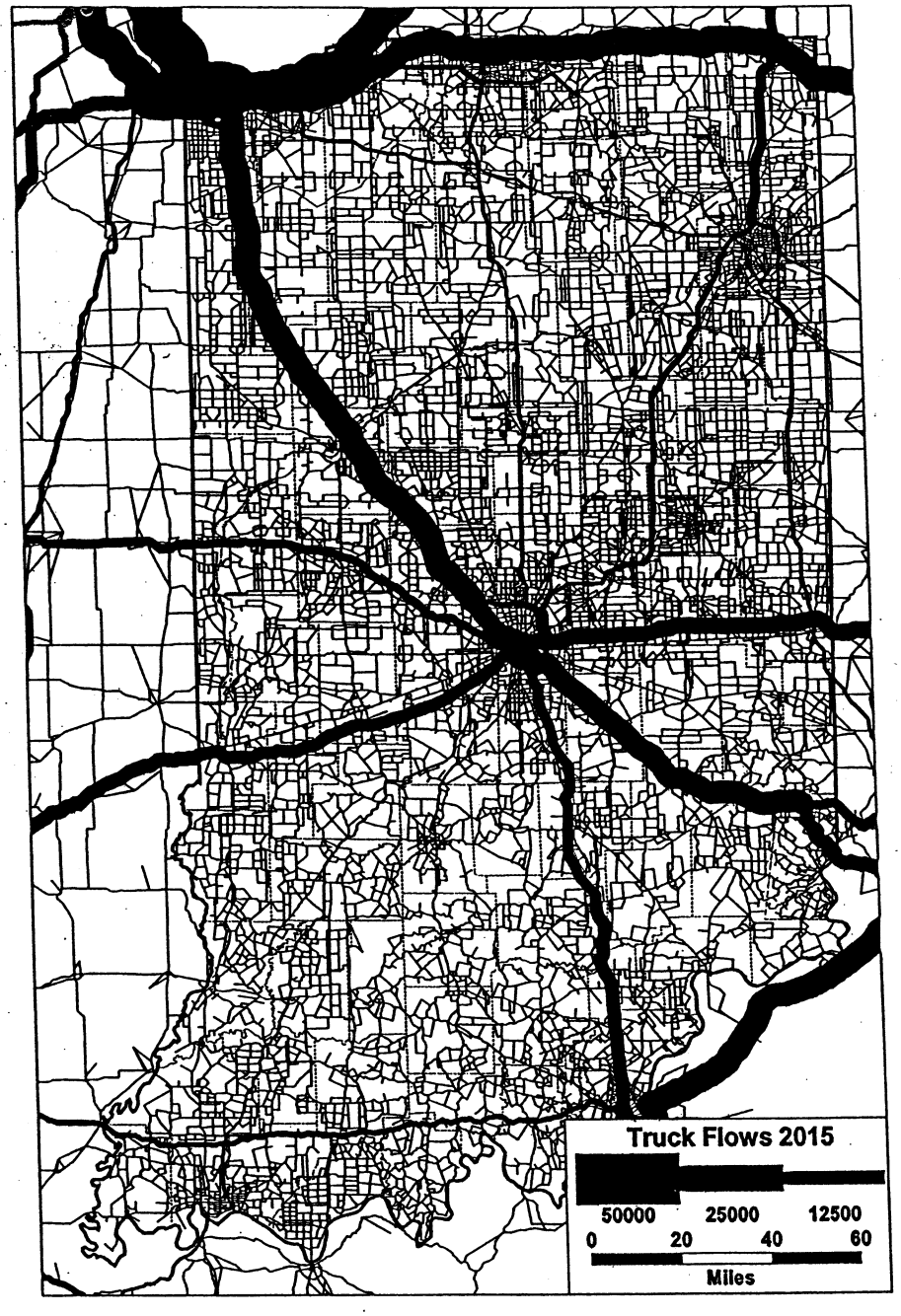


Figure 8-1. Indiana Daily Truckload Freight Volumes for 2015

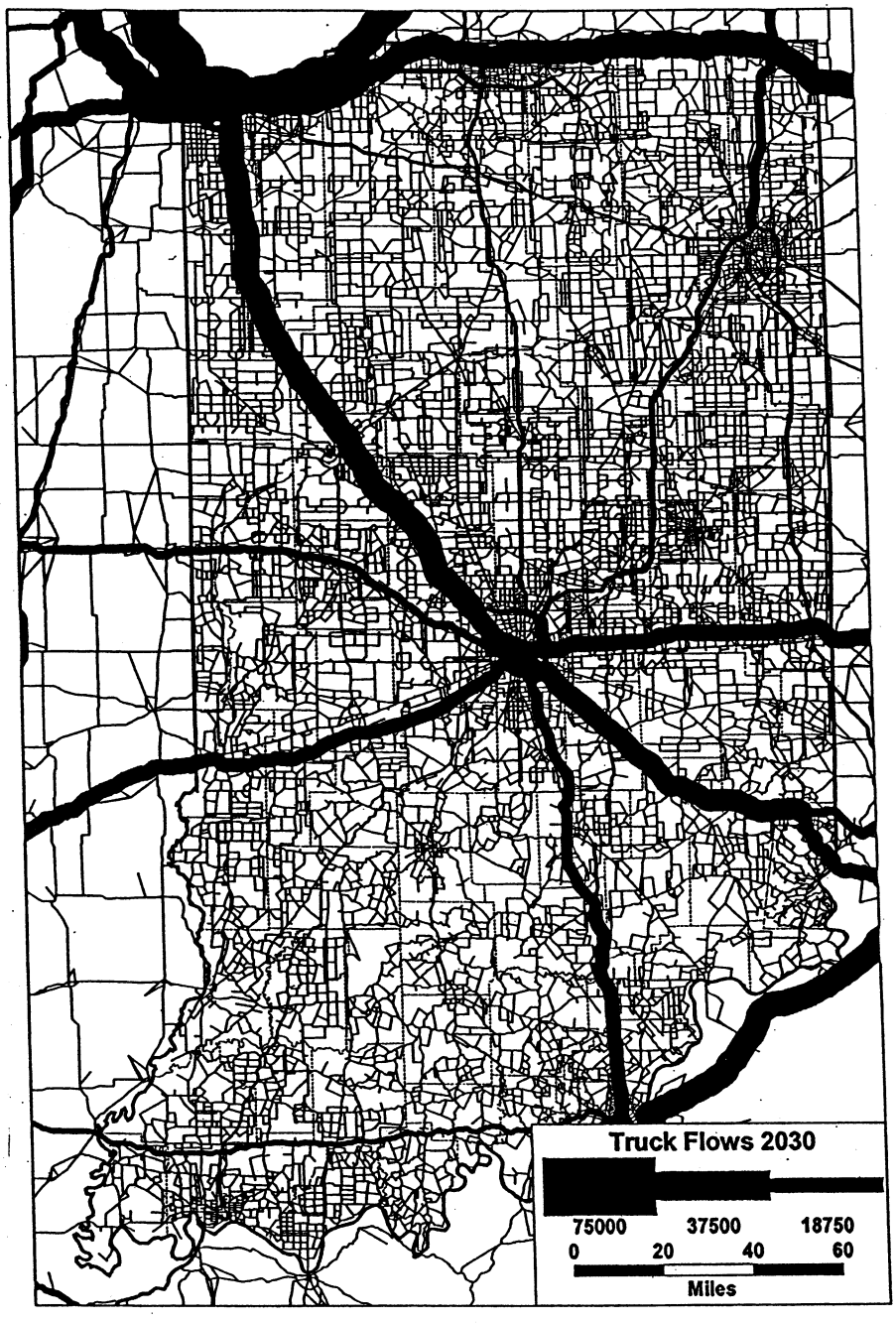


Figure 8-2. Indiana Daily Truckload Freight Volumes for 2030

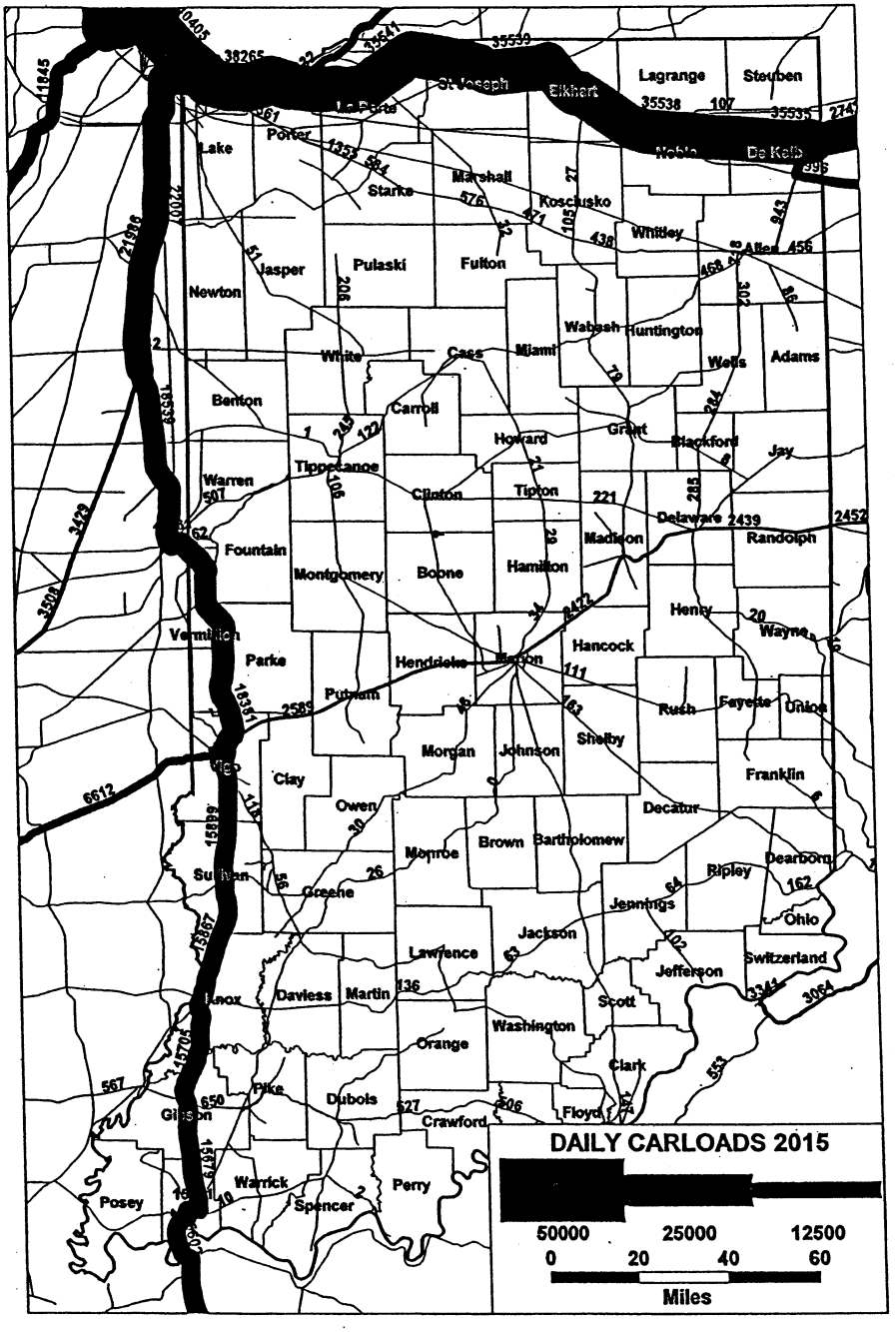


Figure 8-3. Indiana Daily Railcar Freight Volumes for 2015

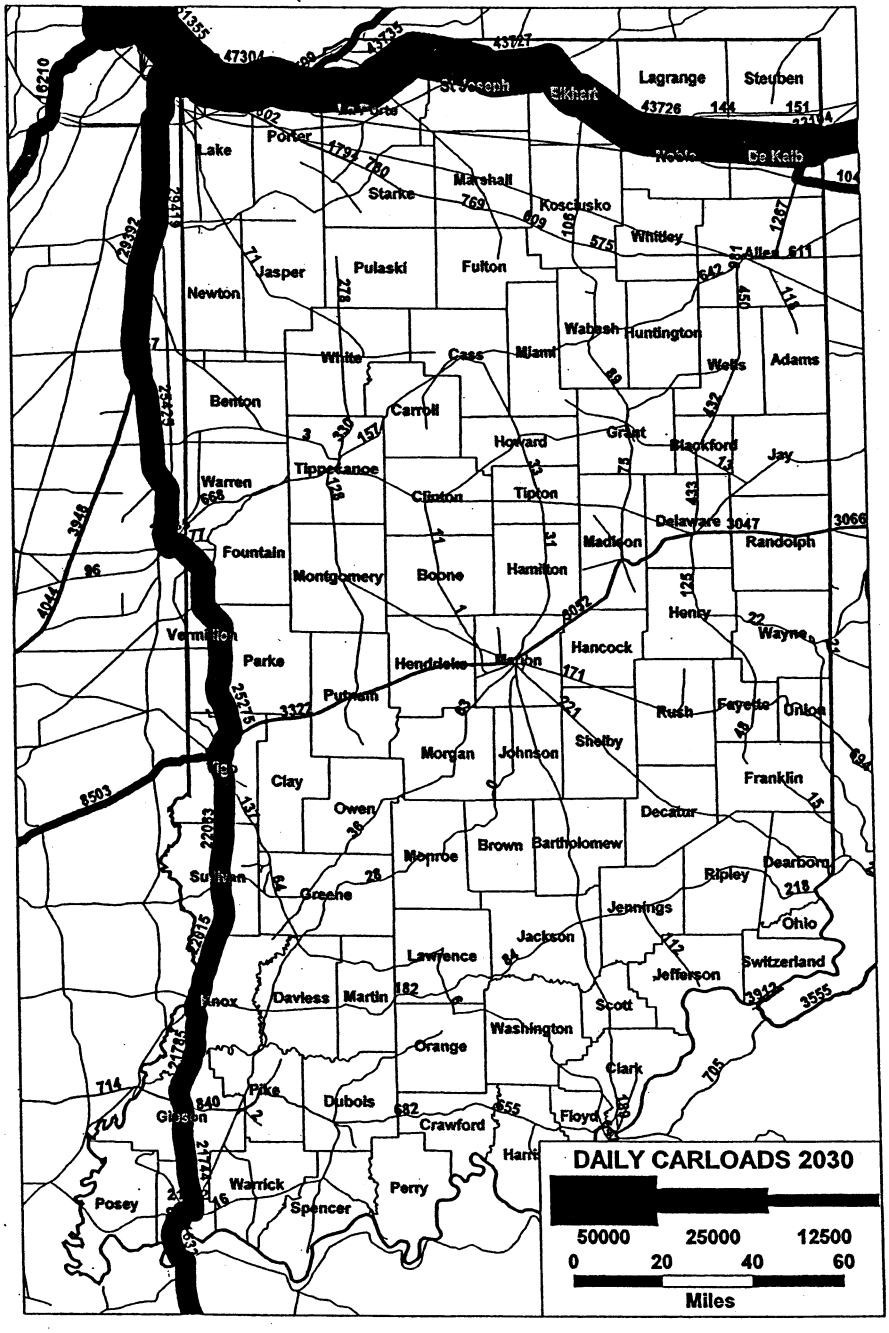


Figure 8-4. Indiana Daily Railcar Freight Volumes for 2030

Possible Improvements

One possible area where improvement is possible in the forecasting area is in the use of more refined estimates of employment growth. As noted above the values used here were county-level specific, but they were not industry-level specific. The assumption is that all of the industries in the county will grow at exactly the same rate. This is perhaps unrealistic. The state may wish to refine these in the future, perhaps using one of the economic models that they already use.

The values used here were supplied by the state and the research team was requested to use these for estimates of employment growth.

Chapter 9

IMPLEMENTATION

This study was undertaken as a planning and analysis project. It should be apparent to the reader that the study also has many of the attributes of a research project. Many of the problems encountered as well as the models used are often found in research papers. We have also evaluated the different models as we went along. The end result is a study that should have value for economic analysis, transport analysis, transport policy formation, and for planning studies conducted by the state or subareas of the state such as metropolitan areas.

In this chapter we will briefly suggest some possible applications for the findings of this study in the areas noted. We will also identify the various deliverables from this project. Beyond this report these consist of computer files that will enable the state to replicate and utilize the models developed here.

Use of the Results for Economic Analysis

The appendices of this report include several project generated databases that should be of use to organizations interested in the flow of goods into, through, and out of counties and urban areas of the state. MPOs (metropolitan planning organizations) have shown considerable interest in the results of this study for such purposes. This would enable these areas to identify which of the myriad of highway projects facing it may have the highest value in terms of local industrial production activities. If an area has an interest in examining its economic base this study will give such areas some information on those economic activities that may wield the greatest impact in terms of the value of commodity flows. This can be done by taking the values from goods for Indiana in 1997 or 2002 (see tables 3-1 and 3-2), and multiplying the tonnage by these values. In this case it should be noted that the values in several of the tables are in thousands of tons.

Using the same procedure a county or metropolitan area can assess to what extent it is an importer or exporter of individual commodity groups. One should bear in mind that the categories or commodity groups used here are indeed groups. That is, these are not individual goods. It may be that a county is importing exactly the same amount of a commodity group as it is exporting of that group. All that this means is that one good of the group may be imported, while another good in the same group may be exported at the same time. Because of these

possible idiosyncrasies it might be best to conduct all such analyses in terms of dollars, rather than tons.

Use of Results for Transport Analysis

The type of transport analysis that can be undertaken using the results of this study are probably primarily at the regional corridor level. In that case we might be talking about a major highway link between Indianapolis and Evansville and the concern might be to what extent such a highway link would facilitate the movement of commodities to or from the state. It would be possible to use the results of this study to estimate the net transport cost savings for the state's manufacturers if such a highway were built. Such an analysis needs some reasonably good estimates of the volume of goods currently moving and this study could provide the same.

Use of the study for such a problem would necessitate the use of a transport network similar to the one that was utilized in this study.

We are also reminded of the fact that the oft cited 1997 freight study was used for a couple of major studies after its completion. One of these involved a statewide analysis of intermodal facilities (Booz-Allen & Hamilton, *et al*., 1997) and another looked at the Indianapolis region in terms of freight flows (Cambridge Systematics, Inc., *et al*.,1998).

For county level studies it might be desirable to try and disaggregate the county level estimates provided here to a lower level of geographic detail. This has been done by the state in the past using data from Dun & Bradstreet to estimate the locations of production and attraction of flows.

Use of the Results for Policy Analysis

The state of Indiana could also use the results of this project to evaluate different policy decisions of the state. For example, the state recently decided to increase the speed limit on some of its highways to 70 mph. This was done without any analysis in terms of evaluating what the impact of such a change might do for the state's commodity flows. While there is no reason to believe this decision would result in alternate route selection, such an evaluation could be undertaken here. The reason why little change would be expected is that the leading routes in terms of previous speed limits are for the most part the same ones that received the increase. There is nevertheless the possibility that a 70 mph speed limit corridor could combine with a 50 mph speed limit corridor and completely pull traffic off of an urban 55 mph corridor. By simply changing the speed limits of the network database, such policy decisions could be examined *a priori* the change.

Databases and Deliverables

Aside from this report and the various flow estimates and forecasts, this project will also

supply the sponsor with production and attraction vectors developed for the 41 commodity groups examined here. These are all being supplied electronically as well as in published form in the appendices of this report. The values for 1997 appear as appendix A. The forecasts over these same set of commodities for 2015 appear as appendix E and the forecasts for 2030 appear as appendix F.

The last deliverable supplied includes the computer programs used here. One of these was used in the 1997 study, but the others are new. They appear here as Fortran 77 code, but they have also been run on a Fortan 95 compiler. They have not been supplied as executable files. They can easily be made computer-ready by running them through any Fortan compiler, e.g., Microsoft, Lahey, Salford, and so forth. The programs used appear here as appendix B.

There are distance decay curves created from data in the 1997 *CFS* reports that appear in appendix C, and illustrate the manner in which traffic falls with increasing distance from an origin.

A second set of databases are the proportions of each of the commodity groups used in the modal assignments. These are being supplied in electronic form as well as in appendix D of this document.

The project will also provide the sponsor with master data files generated by the project. These will include files for all highway, rail, water, pipeline and air freight traffic. Interaction matrices for 1997, 2015, and 2030 will be provided as well. In order for the state analysts to duplicate the findings here and to use the models derived for evaluating projects and alternatives, we will also supply the state with networks used for highways and rail, the density variable for the railroad traffic assignment, as well as the railroad *.net file. Similarly, the same will be provided for the highway sector, along with any files necessary to run the analyses.

A Guide to Using the Data Files

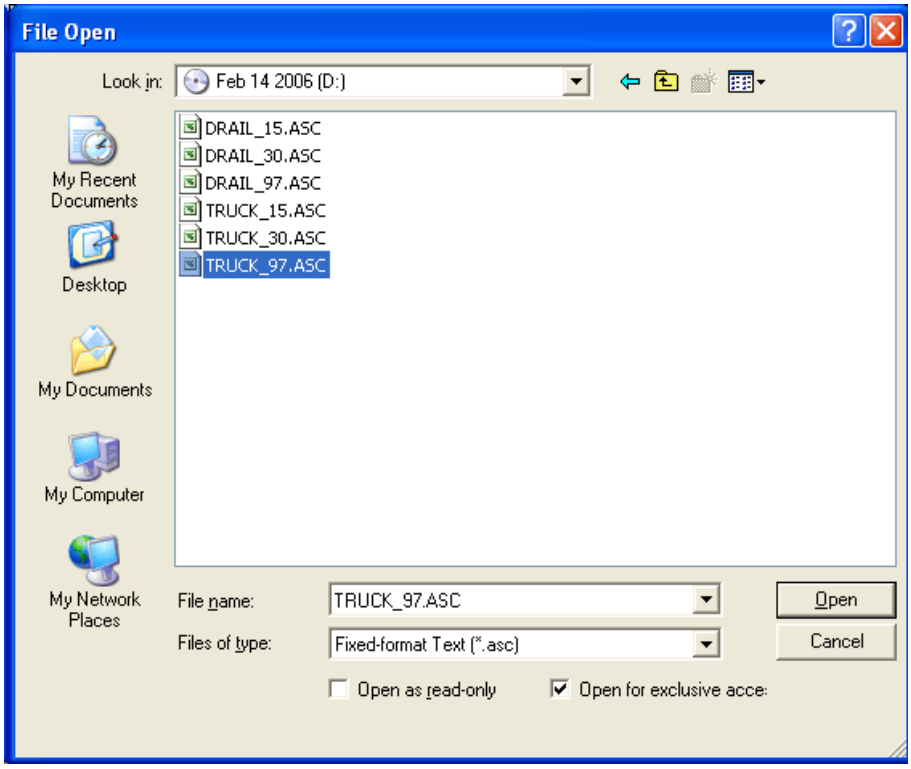
There are numerous uses for the data supplied here and on the CD ROM that will be supplied to the sponsor. As indicated elsewhere we see the users of these as the Indiana DOT and the MPOs of the state of Indiana. We can envision MPOs being interested in the tonnages of goods produced by and attracted to counties within their jurisdiction. This information can easily be obtained by using the appropriate tables of appendix A, E, and F, for 1997, 2015 and 2030, respectively. Appropriate conversions of the data to trucks can be obtained by using the density figures of Table 5-4 in the text of this report. Dividing the tonnages by the truck density will yield the trucks moving these goods in the local area. Conversion of the tonnages to 1997 dollars requires the use of a measure of value for the SCTG groups. These values appear on appendix page B40. The data on that page consists of three columns. The first is the two-digit SCTG code; the second in the motor carrier density, e.g., 9.77, 96.63, and so forth; and the third is the value per ton in 1997 dollars, e.g., $1,042.38.

The other uses of the data supplied here are for evaluating the use of different routes for the movement of goods. This is not nearly so easily done unless the user is skilled in the use of TransCAD, the GIS system used here (Caliper, 2000). We will discuss how this can be done if the user is somewhat familiar with the GIS software.

There are two broad problem areas that the user might want to work on with the data here. The first of these is concerned with the volume of traffic on the local roads of an MPO or other areal unit. In effect the maps prepared here may all be enlarged to reveal such information while the map is resident on the computer, but you lose this ability when the maps appear in print as they do here. So the first thing the user may want to do is create an assignment for the flows distributed. We will call this simply the Assignment Problem below. The second problem seeks to evaluate what the volume of trucks would be on different roads and streets if traffic were prevented from taking some existing link segments in the area under analysis. We will refer to this as the Alternate Routing problem.

The Assignment Problem

We begin by starting TransCAD, and going to File, and then Open. We next find the flow data of interest that we want to assign to the network. In our case the data is on a CD in the D drive entitled February 14, 2006, and it is entitled TRUCK_97.ASC. In order for TransCAD

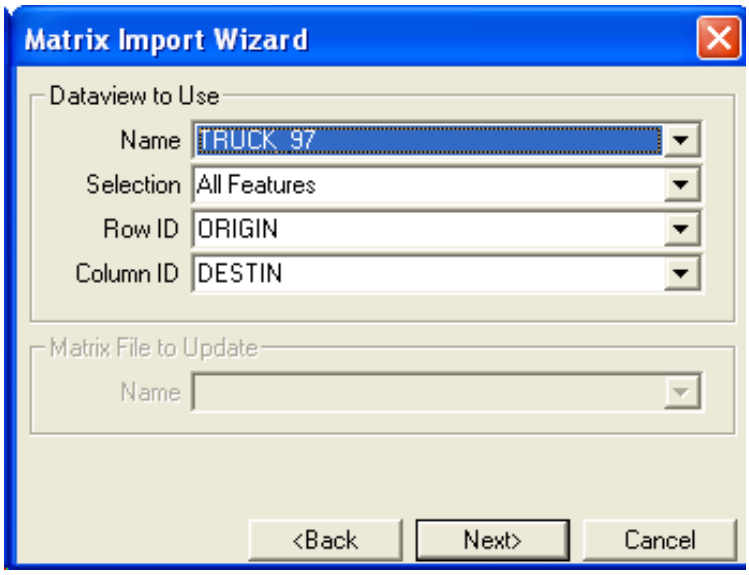


to recognize the data there must also be a dictionary file in the same directory. These files have the extension of .DCT. This file in the case of our flow data has the following form:

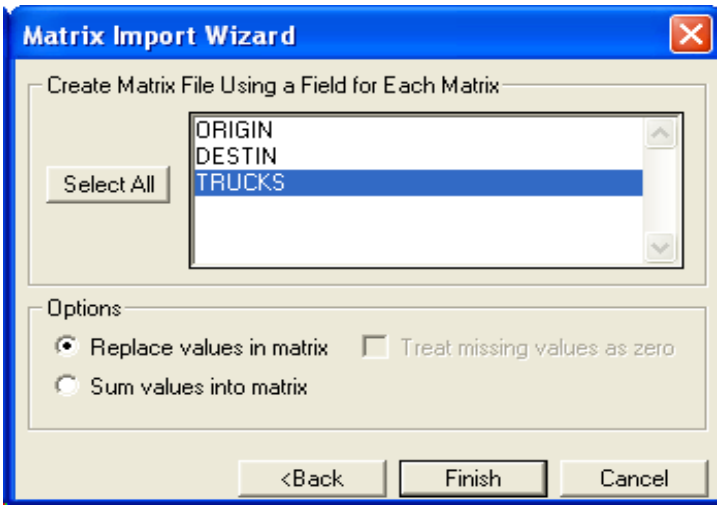
```
TRUCK_97
41
ORIGIN,I,1,8
DESTIN,I,9,8
TRUCKS,R,17,25
```

The name of the DCT file must have the same name as the beginning of the flow data file, so the above five line file is named TRUCK_97.DCT. These files are being supplied with the flow data, but the user may have occasion to create a different flow file (e.g., by converting the trucks to dollars). In such a case the first line is a name for identification purposes, the second line gives the total length of data, line three the name of the rows, the type of data (I for integer here), the column where the data begins, and its length. The next line is the same for the columns. The final line identifies what is being assigned, the type of data (R for real or decimal data here), the column where the variable begins, and the length of the variable. Consult the TransCAD manual for further information on this if necessary.

We next want to create an origin-destination matrix from this data. We go to Matrix on the horizontal TransCAD toolbar at the top of the page. Go down the matrix toolbar to IMPORT and press this. This results in the following screen:

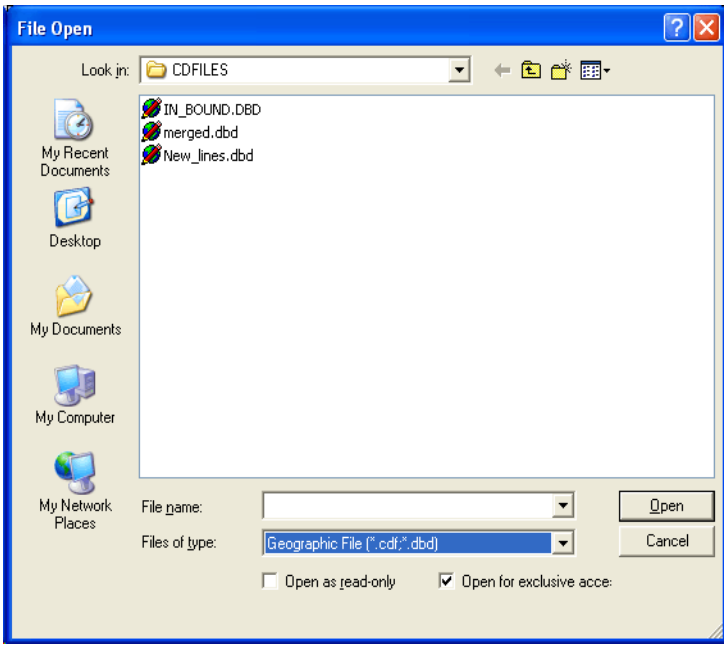


Clicking on Next yields:

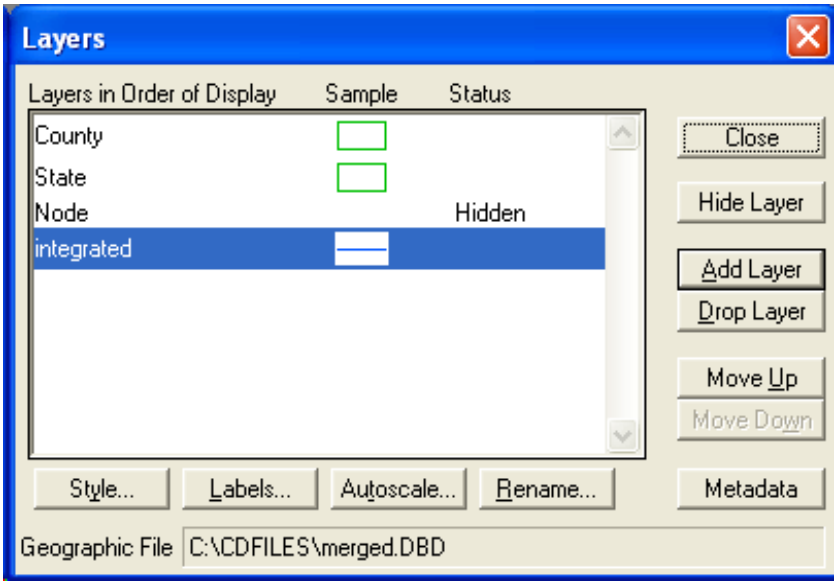


and clicking on Finish yields a screen requesting that you type in the name of the matrix file you are creating. Here we have called it TRUCK__97.MTX. Click on Save and your matrix will appear. Minimize the matrix.

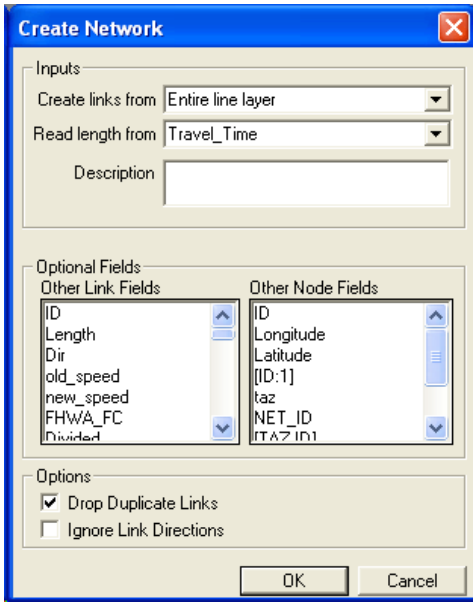
Now that we have the flow matrix, we need to assign these flows to a network. If you have not yet created a network you must do this first. Go to your boundary file directory. This is labeled



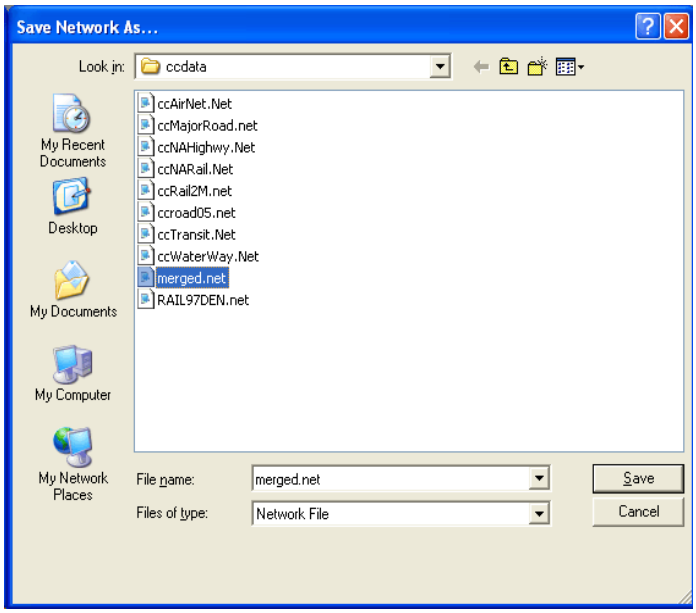
CDFILES here. Make sure the Geographic Files appears and load the IN_BOUND.DBD. This will create a map of Indiana on the screen with counties and the state outlined. Next go to the toolbar at the top of the TransCAD screen. Click on the layers icon. Click on Add Layer and add the merged.DBD. This will yield the display below and create a highway network for the state. Clicking on Close will produce the network on the screen.



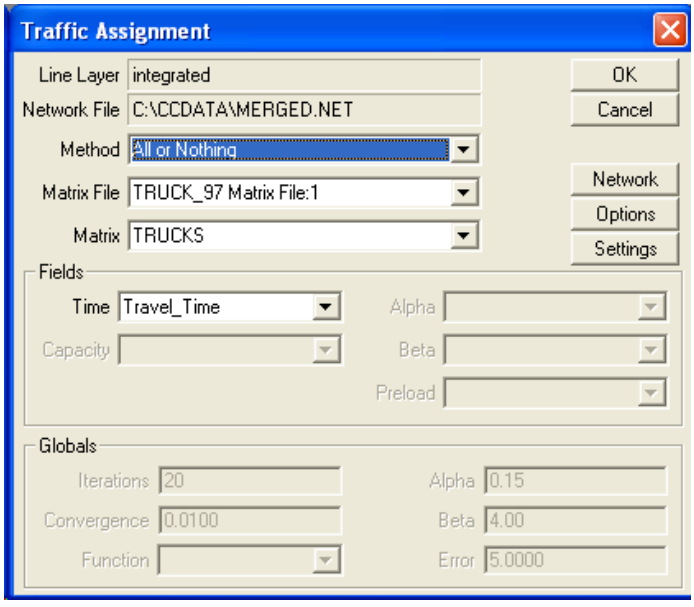
To create a network for assigning flows you next go to the horizontal toolbar at the top of the TransCAD screen. Make sure the active layer is the network (called integrated here). Now go to the Network/Paths icon and click it. From the toolbar produced click Create. The screen below appears.



The travel time we will use is listed as Travel_Time. Select it so that it is displayed in the window. Click on OK. You will be asked for a name for the network file. We have called ours merged.net.

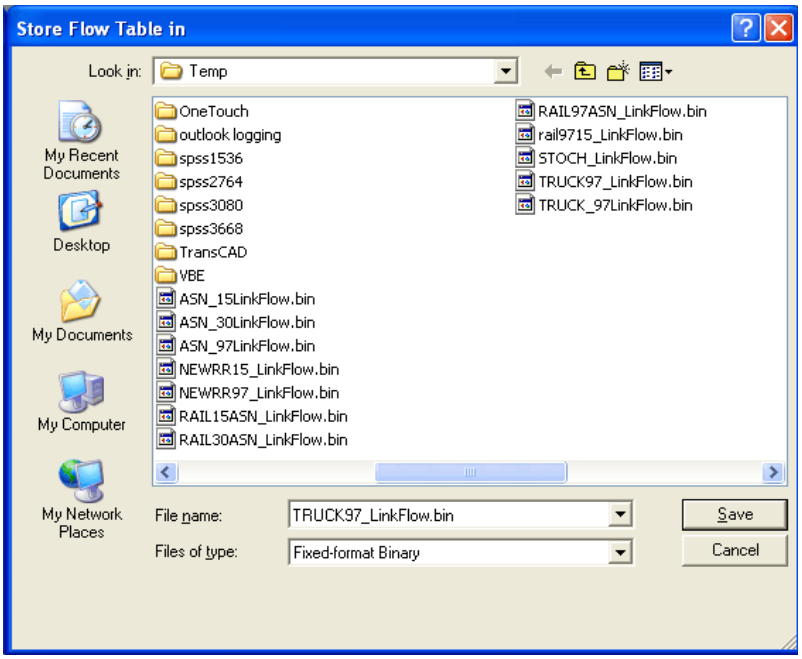


Make sure your flow matrix is active and click on Planning on the horizontal toolbar. Then click on Traffic Assignment. Since we are dealing only with trucks we use All or Nothing as noted in this report. Insert Travel_Time if it does not appear. It is found below.

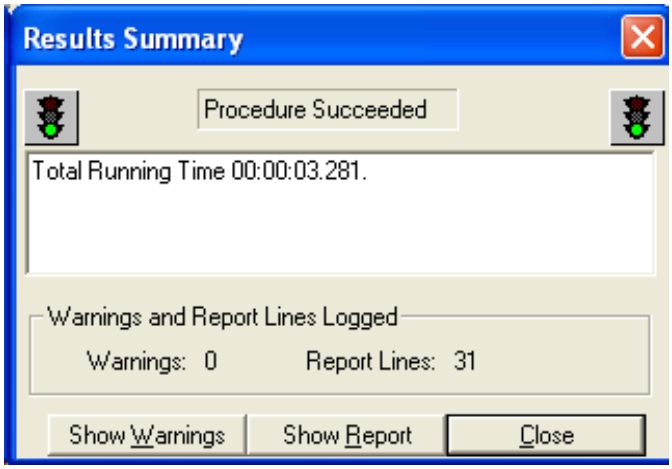


Make sure the TRUCK_97 and merged.net are active. If they do not appear in the above window, try again. As noted above we have selected the "All or Nothing" assignment routine. Other assignment algorithms require a capacity value which is not in the database. Click OK.

We are next asked for a name for the assignment flows. We have used TRUCK97_LinkFlow.bin to store the assigned flows. Click Save.

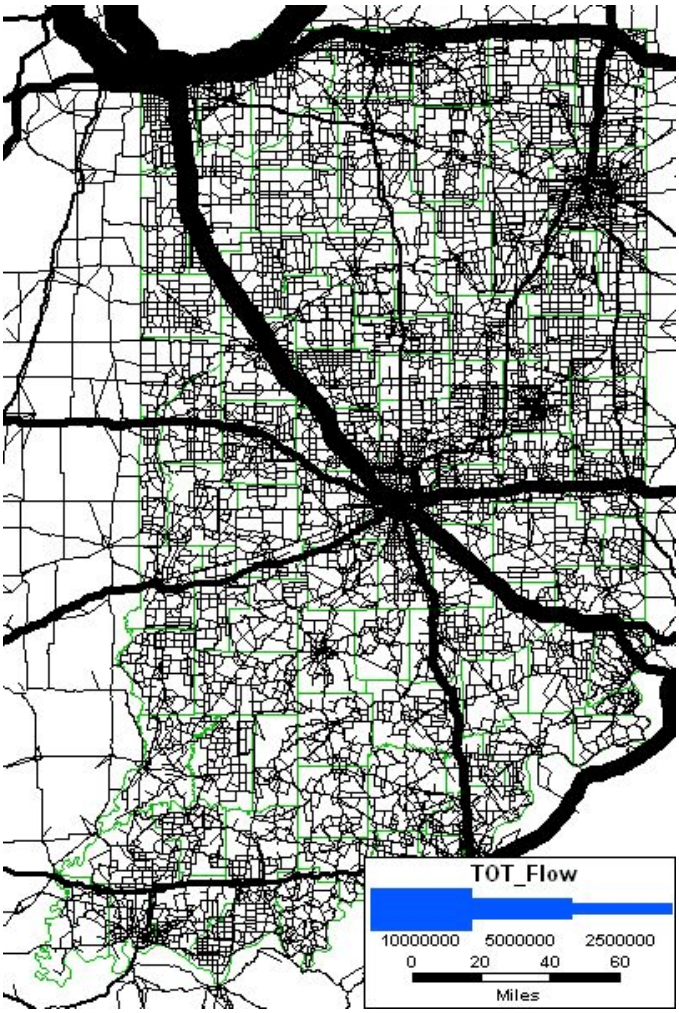


The assignment is executed and a small window appears telling you whether this has been successful.



A new window appears behind the above and this is a dataview that combined the integrated database and the assignments.

If we go back to our Indiana map and click on the TOT_FLOW and the proportional scaling icon (the one with the stars) we will then get a map of the Indiana highway system that displays the volume of traffic on all links Such as the one below:



While in TransCAD you can focus on any part of this network and identify flow volumes for metropolitan area highways, counties, and so forth.

The Alternate Routing Problem

When a road or highway is closed due to an accident, you may want to assess the most likely way that traffic can be diverted to alternate routes; or you may want to evaluate the impacts of building new roads, e.g., a bypass, on truck traffic on local roads; or you may want to evaluate alternate routings if you don't want trucks going through the center of town. All of these are alternate routing problems. Depending on the complexity of the problem at hand, we can evaluate it by dropping one of more links from the network.

At the outset the primary thing you want to do is back up the network file before you begin anything else. You may be tempted to simply go into the network layer and delete links of the system. That is one approach, but I would rather not mess up the network in that way. My preference is to use the side toolbar on the right side of the TransCAD window.

In this approach you enlarge the highway network map and identify the links that you do not want used. Click on the large **i**. Note the link number and make sure this is the link you do not want used in the routing. Go to the Travel_Time variable, and change the travel time to 1000 or any large number. When you run the assignment routine, or the shortest path routine between any two nodes, this is read as a very high cost and the link is not selected. Follow this approach for any other links of interest. You can go back and edit the travel time values for all links changed in the same manner, assuming you have kept a record of the initial values which you changed, or you can click on Edit on the horizontal bar, click on Fill, and have the travel time variable replaced with the initial values as calculated by:

Travel_time = (Length/new_speed) * 60

This will replace any changes with the original values.

Summary

This chapter has summarized the various ways in which this study could be used by the state and by metropolitan planning organization (MPOs). It was noted that the study could be used for transport analysis, economic analysis and for policy analysis. It is important to emphasize that because of the way in which the modal split analysis was carried out here, it would not be possible to examine some of the questions related to this area. In other words, we have used historical patterns to allocate future splits of traffic between the various modes. Such an approach is not sensitive to changes in prices, tolls and the like and this does limit its utility.

In addition this chapter has also provided a guide as to how this report and its databases could be used by planners at different scales (state level and MPO level). We have outlined the various steps that are necessary to use this approach to assign the traffic generated. We have not dwelt upon the various commodities that could be assigned, but if the state and MPOs have an

interest in this they can certainly undertake such analyses. The appropriate files are provided here. We have also provided some direction on how the data could be examined at the county level in terms of productions and attractions. Finally we have suggested the manner in which this study could be used to examine the problem of alternative routes could be examined. This would be very useful in the event that planners wanted to examine a number of different transport questions.

References

Booz-Allen Hamilton, Inc., Bill Black (Indiana University), Professional Data Dimensions,Caliper Corporation and GIS/Trans, Ltd. (1997), *Intermodal Management System*, (San Francisco: Booz-Allen Hamilton, Inc.), October.

Caliper (2000), *TransCAD: Transportation GIS Software, User's Guide*, Newton, MA: Caliper Corporation.

Cambridge Systematics, Inc., Dyer Environmental Services. URS Greiner, Inc., and William R. Black (1998), *Indianapolis Intermodal Freight System Plan*, Final Report, prepared for the Indianapolis Department of Metropolitan Development, (Cambridge, Mass.: Cambridge Systematics, Inc.), June.

APPENDICES

APPENDIX A - PRODUCTIONS AND ATTRACTIONS, 1997

APPENDIX B - COMPUTER PROGRAMS DEVELOPED

APPENDIX C - DISTANCE DECAY CURVES

APPENDIX D - MODE CHOICE/DISTANCE TABLES

APPENDIX E - PRODUCTIONS AND ATTRACTIONS 2015

APPENDIX F - PRODUCTIONS AND ATTRACTIONS 2030

APPENDIX A

PRODUCTIONS AND ATTRACTIONS 1997

Table Notes

The tables in this appendix give the estimated volume of traffic produced and attracted by areas included in this study for each commodity. The area appears under the column label State and includes the 145 different areas included in the freight study. From line 14 to line 105 we have the counties of Indiana. States represented by two or more nodes are evident here as well.

The data columns labeled P are productions and those labeled A are attractions. The next two digits represent the commodity groups SCTG 1, SCTG 2, and so forth. The 97 represents the year of the data, 1997.

The data in some cases are taken directly from the Commodity Flow Survey. Where data could not be released due to sample size or disclosure considerations, the values have been estimated here using regression analysis. Controls on estimates were taken from the US totals as adjusted for Hawaii and Alaska, which are not part of the study. For the counties of Indiana these values were estimated using the regression models described in the text of the report. The controls on these estimates were the commodity totals for the state of Indiana.

The data are actually given here to three decimal places. This is because the data as published is in thousands of tons. In many cases this would completely eliminate flows into Indiana counties of several goods. It is for this reason that three decimal places were used. Programs used later would multiply flow estimates by 1,000 to yield tons of commodities. The reader should judge the reliability of the data given these facts.

	State	P01_97	A01_97
1	Alabama	125.000	44.011
2	Arizona	.000	37.009
3	Arkansas	96.692	213.051
4	California	536.836	616.149
5	Colorado	.000	76.018
6	Connecticut	.000	37.009
7	Delaware	5.331	39.009
8	DC	.000	.000
9	Florida	147.569	13.003
10	Georgia	117.756	250.060
11	Idaho	14.048	67.016
12	Illinois_N	112.000	174.042
13	Illinois_S	48.000	75.018
14	Adams	8.839	3.204
15	Allen	33.455	15.402
16	Bartholomew	25.016	11.976
17	Benton	2.001	.000
18	Blackford	.334	.554
19	Boone	2.001	.092
20	Brown	.000	.092
21	Carroll	12.508	16.159
22	Cass	.334	16.159
23	Clark	37.324	2.659
24	Clay	.334	.092
25	Clinton	2.001	19.290
26	Crawford	.000	.000
27	Daviess	2.001	9.382
28	Dearborn	.000	.092
29	Decatur	.334	3.417
30	DeKalb	.334	.554
31	Delaware	4.703	1.154
32	Dubois	219.809	7.369
33	Elkhart	128.550	5.993
34	Fayette	2.001	.000
35	Floyd	14.776	6.695
36	Fountain	.000	.554
37	Franklin	.000	.092
38	Fulton	.000	1.431
39	Gibson	.000	3.463
40	Grant	5.837	2.447
41	Greene	.334	3.463
42	Hamilton	8.706	1.228
43	Hancock	2.001	.092
44	Harrison	21.647	6.695
45	Hendricks	.334	4.257
46	Henry	5.837	.554
47	Howard	12.508	1.468
48	Huntington	.000	3.463
49	Jackson	2.001	.332
50	Jasper	.334	2.078
51	Jay	2.001	4.100

	State	P01_97	A01_97
52	Jefferson	.334	.185
53	Jennings	.000	.000
54	Johnson	2.902	.065
55	Knox	.334	1.219
56	Kosciusko	10.207	8.458
57	LaGrange	10.040	1.644
58	Lake	8.439	10.425
59	La Porte	5.837	5.180
60	Lawrence	.334	.554
61	Madison	13.709	6.925
62	Marion	42.227	35.634
63	Marshall	2.001	3.943
64	Martin	.000	.554
65	Miami	12.508	.554
66	Monroe	2.335	.896
67	Montgomery	.000	3.463
68	Morgan	.334	.092
69	Newton	2.001	.092
70	Noble	2.001	6.925
71	Ohio	.000	.000
72	Orange	58.371	.554
73	Owen	.000	.092
74	Parke	.334	1.616
75	Perry	9.773	.092
76	Pike	.000	.000
77	Porter	1.701	2.973
78	Posey	.000	.554
79	Pulaski	.334	.637
80	Putnam	.000	.092
81	Randolph	.334	.711
82	Ripley	5.837	.092
83	Rush	.000	.240
84	St. Joseph	5.604	6.408
85	Scott	2.001	3.463
86	Shelby	11.074	1.616
87	Spencer	25.016	.554
88	Starke	.334	.000
89	Steuben	.334	2.327
90	Sullivan	.000	.000
91	Switzerland	.334	.000
92	Tippecanoe	25.016	5.947
93	Tipton	.000	1.616
94	Union	.000	.000
95	Vanderburgh	13.375	32.347
96	Vermillion	.000	.074
97	Vigo	2.001	2.290
98	Wabash	.334	.554
99	Warren	.000	.092
100	Warrick	.334	.000
101	Washington	58.371	.554
102	Wayne	23.815	6.510

	State	P01_97	A01_97
103	Wells	.334	4.728
104	White	5.837	.388
105	Whitley	1.468	.092
106	Iowa	653.000	762.184
107	Kansas	135.000	257.062
108	Kentucky_E	48.000	34.008
109	Kentucky_W	32.000	23.006
110	Louisiana	9.967	73.018
111	Maine	1.000	1.000
112	Maryland	33.404	71.017
113	Massachusetts	.000	90.022
114	Michigan_E	141.000	68.016
115	Michigan_W	141.000	68.016
116	Minnesota	92.001	179.043
117	Mississippi	229.469	111.027
118	Missouri	96.779	15.004
119	Montana	6.391	9.002
120	Nebraska	24.513	143.034
121	Nevada	2.000	13.003
122	New Hampshire	10.892	9.002
123	New Jersey	17.000	124.030
124	New Mexico	7.791	21.005
125	New York	166.806	203.049
126	North Carolina	615.453	219.053
127	North Dakota	.000	23.006
128	Ohio_N	92.000	35.008
129	Ohio_M	92.000	35.008
130	Ohio_S	91.000	34.008
131	Oklahoma	26.973	133.032
132	Oregon	47.444	82.020
133	Pennsylvania	81.000	65.016
134	Rhode Island	.000	12.003
135	South Carolina	45.095	66.016
136	South Dakota	13.012	14.003
137	Tennessee	198.675	151.036
138	Texas	245.000	388.094
139	Utah	.000	50.012
140	Vermont	22.409	16.004
141	Virginia	181.645	27.007
142	Washington	58.953	140.034
143	West Virginia	.000	22.005
144	Wisconsin	135.522	175.042
145	Wyoming	.000	.000

	State	P02_97	A02_97
1	Alabama	3047.189	2912.000
2	Arizona	786.836	410.000
3	Arkansas	2051.906	10474.000
4	California	1953.959	10511.000
5	Colorado	7726.882	9764.000
6	Connecticut	780.428	509.000
7	Delaware	1302.306	1463.000
8	DC	.000	.000
9	Florida	3227.396	1916.000
10	Georgia	5275.241	5832.000
11	Idaho	2988.407	1944.000
12	Illinois_N	47316.780	34398.000
13	Illinois_S	20279.191	14757.000
14	Adams	123.226	23.281
15	Allen	592.336	144.345
16	Bartholomew	460.587	.000
17	Benton	.000	.000
18	Blackford	21.307	.000
19	Boone	3.551	.000
20	Brown	3.551	.000
21	Carroll	621.456	.000
22	Cass	621.456	.000
23	Clark	102.274	235.143
24	Clay	3.551	.000
25	Clinton	741.840	.000
26	Crawford	.000	.000
27	Daviess	360.799	23.281
28	Dearborn	3.551	23.281
29	Decatur	131.393	.000
30	DeKalb	21.307	.000
31	Delaware	44.390	.000
32	Dubois	283.384	.000
33	Elkhart	230.471	23.281
34	Fayette	.000	.000
35	Floyd	257.460	.000
36	Fountain	21.307	.000
37	Franklin	3.551	139.689
38	Fulton	55.043	.000
39	Gibson	133.169	.000
40	Grant	94.106	.000
41	Greene	133.169	.000
42	Hamilton	47.231	23.281
43	Hancock	3.551	.000
44	Harrison	257.460	139.689
45	Hendricks	163.709	.000
46	Henry	21.307	.000
47	Howard	56.464	.000
48	Huntington	133.169	23.281
49	Jackson	12.784	.000
50	Jasper	79.901	.000
51	Jay	157.672	23.281

	State	P02_97	A02_97
52	Jefferson	7.102	.000
53	Jennings	.000	139.689
54	Johnson	2.486	.000
55	Knox	46.876	23.281
56	Kosciusko	325.288	23.281
57	LaGrange	63.211	.000
58	Lake	400.928	5026.472
59	La Porte	199.221	23.281
60	Lawrence	21.307	139.689
61	Madison	266.338	.000
62	Marion	1370.398	277.050
63	Marshall	151.635	139.689
64	Martin	21.307	.000
65	Miami	21.307	.000
66	Monroe	34.446	139.689
67	Montgomery	133.169	.000
68	Morgan	3.551	.000
69	Newton	3.551	.000
70	Noble	266.338	.000
71	Ohio	.000	.000
72	Orange	21.307	.000
73	Owen	3.551	.000
74	Parke	62.146	.000
75	Perry	3.551	.000
76	Pike	.000	.000
77	Porter	114.348	.000
78	Posey	21.307	873.056
79	Pulaski	24.503	.000
80	Putnam	3.551	.000
81	Randolph	27.344	23.281
82	Ripley	3.551	23.281
83	Rush	9.233	.000
84	St. Joseph	246.452	23.281
85	Scott	133.169	23.281
86	Shelby	62.146	.000
87	Spencer	21.307	.000
88	Starke	.000	.000
89	Steuben	89.490	23.281
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	228.696	23.281
93	Tipton	62.146	.000
94	Union	.000	.000
95	Vanderburgh	1243.977	.000
96	Vermillion	2.841	.000
97	Vigo	88.069	.000
98	Wabash	21.307	23.281
99	Warren	3.551	.000
100	Warrick	.000	.000
101	Washington	21.307	.000
102	Wayne	250.358	.000

	State	P02_97	A02_97
103	Wells	181.820	.000
104	White	14.915	.000
105	Whitley	3.551	.000
106	Iowa	31921.986	24068.000
107	Kansas	41168.057	26762.000
108	Kentucky_E	3509.130	1843.000
109	Kentucky_W	2338.753	1228.000
110	Louisiana	40132.609	90987.000
111	Maine	8.995	197.000
112	Maryland	1182.370	1211.000
113	Massachusetts	1895.024	1180.000
114	Michigan_E	2611.608	1369.000
115	Michigan_W	2611.608	1369.000
116	Minnesota	37414.058	27634.000
117	Missisippi	2344.444	2023.000
118	Missouri	13516.796	11645.000
119	Montana	4362.675	913.000
120	Nebraska	38598.427	21319.000
121	Nevada	267.633	67.000
122	New Hampshire	.000	173.000
123	New Jersey	5.997	100.000
124	New Mexico	357.429	872.000
125	New York	760.595	3136.000
126	North Carolina	2103.879	10835.000
127	North Dakota	27469.359	6543.000
128	Ohio_N	8350.549	3352.000
129	Ohio_M	8349.550	3352.000
130	Ohio_S	8349.550	3351.000
131	Oklahoma	4736.475	5017.000
132	Oregon	18588.093	28974.000
133	Pennsylvania	1490.206	3012.000
134	Rhode Island	.000	11.000
135	South Carolina	271.855	924.000
136	South Dakota	706.695	3039.000
137	Tennessee	1665.112	6710.000
138	Texas	23203.632	31802.000
139	Utah	1055.610	715.000
140	Vermont	331.359	109.000
141	Virginia	2268.791	2563.000
142	Washington	38235.620	49543.000
143	West Virginia	.000	135.000
144	Wisconsin	8136.663	7730.000
145	Wyoming	65.833	940.000

	State	P03_97	A03_97
1	Alabama	1682.000	3020.820
2	Arizona	827.131	1355.817
3	Arkansas	2171.000	2934.769
4	California	16275.000	14203.559
5	Colorado	1676.684	502.303
6	Connecticut	820.395	407.245
7	Delaware	481.000	670.404
8	DC	.000	.000
9	Florida	5351.000	5132.093
10	Georgia	2641.000	2806.691
11	Idaho	1909.000	779.470
12	Illinois_N	17375.000	13189.949
13	Illinois_S	7447.000	5653.407
14	Adams	73.258	11.615
15	Allen	352.146	72.012
16	Bartholomew	273.821	.000
17	Benton	.000	.000
18	Blackford	12.667	.000
19	Boone	2.111	.000
20	Brown	2.111	.000
21	Carroll	369.457	.000
22	Cass	369.457	.000
23	Clark	60.802	117.310
24	Clay	2.111	.000
25	Clinton	441.027	.000
26	Crawford	.000	.000
27	Daviess	214.496	11.615
28	Dearborn	2.111	11.615
29	Decatur	78.114	.000
30	DeKalb	12.667	.000
31	Delaware	26.390	.000
32	Dubois	168.473	.000
33	Elkhart	137.016	11.615
34	Fayette	.000	.000
35	Floyd	153.061	.000
36	Fountain	12.667	.000
37	Franklin	2.111	69.689
38	Fulton	32.723	.000
39	Gibson	79.169	.000
40	Grant	55.946	.000
41	Greene	79.169	.000
42	Hamilton	28.079	11.615
43	Hancock	2.111	.000
44	Harrison	153.061	69.689
45	Hendricks	97.326	.000
46	Henry	12.667	.000
47	Howard	33.568	.000
48	Huntington	79.169	11.615
49	Jackson	7.600	.000
50	Jasper	47.502	.000
51	Jay	93.737	11.615

	State	P03_97	A03_97
52	Jefferson	4.222	.000
53	Jennings	.000	69.689
54	Johnson	1.478	.000
55	Knox	27.868	11.615
56	Kosciusko	193.385	11.615
57	LaGrange	37.579	.000
58	Lake	238.353	2507.656
59	La Porte	118.437	11.615
60	Lawrence	12.667	69.689
61	Madison	158.339	.000
62	Marion	814.706	138.217
63	Marshall	90.148	69.689
64	Martin	12.667	.000
65	Miami	12.667	.000
66	Monroe	20.478	69.689
67	Montgomery	79.169	.000
68	Morgan	2.111	.000
69	Newton	2.111	.000
70	Noble	158.339	.000
71	Ohio	.000	.000
72	Orange	12.667	.000
73	Owen	2.111	.000
74	Parke	36.946	.000
75	Perry	2.111	.000
76	Pike	.000	.000
77	Porter	67.980	.000
78	Posey	12.667	435.559
79	Pulaski	14.567	.000
80	Putnam	2.111	.000
81	Randolph	16.256	11.615
82	Ripley	2.111	11.615
83	Rush	5.489	.000
84	St. Joseph	146.516	11.615
85	Scott	79.169	11.615
86	Shelby	36.946	.000
87	Spencer	12.667	.000
88	Starke	.000	.000
89	Steuben	53.202	11.615
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	135.960	11.615
93	Tipton	36.946	.000
94	Union	.000	.000
95	Vanderburgh	739.548	.000
96	Vermillion	1.689	.000
97	Vigo	52.357	.000
98	Wabash	12.667	11.615
99	Warren	2.111	.000
100	Warrick	.000	.000
101	Washington	12.667	.000
102	Wayne	148.839	.000

	State	P03_97	A03_97
103	Wells	108.093	.000
104	White	8.867	.000
105	Whitley	2.111	.000
106	Iowa	19127.000	16395.881
107	Kansas	1990.000	1432.863
108	Kentucky_E	1462.000	1393.840
109	Kentucky_W	975.000	928.560
110	Louisiana	14288.000	38375.126
111	Maine	584.454	492.297
112	Maryland	1572.785	1874.129
113	Massachusetts	1992.071	2239.349
114	Michigan_E	1968.000	1980.193
115	Michigan_W	1968.000	1980.193
116	Minnesota	13925.000	8862.341
117	Mississippi	2464.506	795.479
118	Missouri	5923.000	5342.219
119	Montana	203.645	544.328
120	Nebraska	6159.000	5340.218
121	Nevada	281.339	160.096
122	New Hampshire	203.922	67.040
123	New Jersey	930.000	3591.164
124	New Mexico	145.000	556.335
125	New York	1990.000	3887.343
126	North Carolina	3547.000	4952.985
127	North Dakota	3651.000	2738.650
128	Ohio_N	3521.000	2686.619
129	Ohio_M	3521.000	2686.619
130	Ohio_S	3521.000	2686.619
131	Oklahoma	536.000	618.373
132	Oregon	3273.000	1167.704
133	Pennsylvania	7331.000	5171.116
134	Rhode Island	260.024	181.109
135	South Carolina	1022.000	1520.917
136	South Dakota	2064.000	448.270
137	Tennessee	3348.015	1133.683
138	Texas	8821.000	10095.084
139	Utah	535.000	734.443
140	Vermont	1086.000	438.264
141	Virginia	2767.000	2658.602
142	Washington	5410.000	7346.427
143	West Virginia	485.353	1110.669
144	Wisconsin	2766.000	2495.504
145	Wyoming	69.204	8.005

	State	P04_97	A04_97
1	Alabama	7211.606	7817.000
2	Arizona	579.415	1125.000
3	Arkansas	11990.272	11917.000
4	California	17284.196	20003.000
5	Colorado	3295.044	3085.000
6	Connecticut	574.402	1116.000
7	Delaware	1029.513	1359.000
8	DC	.000	.000
9	Florida	3876.464	4471.000
10	Georgia	10255.036	9825.000
11	Idaho	2635.434	2210.000
12	Illinois_N	9495.181	4916.000
13	Illinois_S	4069.936	2107.000
14	Adams	67.828	52.836
15	Allen	326.042	253.980
16	Bartholomew	253.523	197.489
17	Benton	.000	.000
18	Blackford	11.728	9.136
19	Boone	1.955	1.523
20	Brown	1.955	1.523
21	Carroll	342.071	266.466
22	Cass	342.071	266.466
23	Clark	56.295	43.853
24	Clay	1.955	1.523
25	Clinton	408.335	318.084
26	Crawford	.000	.000
27	Daviess	198.597	154.702
28	Dearborn	1.955	1.523
29	Decatur	72.324	56.338
30	DeKalb	11.728	9.136
31	Delaware	24.434	19.033
32	Dubois	155.984	121.508
33	Elkhart	126.859	98.821
34	Fayette	.000	.000
35	Floyd	141.715	110.393
36	Fountain	11.728	9.136
37	Franklin	1.955	1.523
38	Fulton	30.298	23.601
39	Gibson	73.301	57.100
40	Grant	51.799	40.351
41	Greene	73.301	57.100
42	Hamilton	25.997	20.251
43	Hancock	1.955	1.523
44	Harrison	141.715	110.393
45	Hendricks	90.111	70.195
46	Henry	11.728	9.136
47	Howard	31.080	24.210
48	Huntington	73.301	57.100
49	Jackson	7.037	5.482
50	Jasper	43.981	34.260
51	Jay	86.788	67.606

	State	P04_97	A04_97
52	Jefferson	3.909	3.045
53	Jennings	.000	.000
54	Johnson	1.368	1.066
55	Knox	25.802	20.099
56	Kosciusko	179.050	139.476
57	LaGrange	34.793	27.103
58	Lake	220.685	171.908
59	La Porte	109.658	85.421
60	Lawrence	11.728	9.136
61	Madison	146.602	114.200
62	Marion	754.315	587.595
63	Marshall	83.465	65.018
64	Martin	11.728	9.136
65	Miami	11.728	9.136
66	Monroe	18.960	14.770
67	Montgomery	73.301	57.100
68	Morgan	1.955	1.523
69	Newton	1.955	1.523
70	Noble	146.602	114.200
71	Ohio	.000	.000
72	Orange	11.728	9.136
73	Owen	1.955	1.523
74	Parke	34.207	26.647
75	Perry	1.955	1.523
76	Pike	.000	.000
77	Porter	62.941	49.030
78	Posey	11.728	9.136
79	Pulaski	13.487	10.506
80	Putnam	1.955	1.523
81	Randolph	15.051	11.724
82	Ripley	1.955	1.523
83	Rush	5.082	3.959
84	St. Joseph	135.656	105.673
85	Scott	73.301	57.100
86	Shelby	34.207	26.647
87	Spencer	11.728	9.136
88	Starke	.000	.000
89	Steuben	49.258	38.371
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	125.882	98.059
93	Tipton	34.207	26.647
94	Union	.000	.000
95	Vanderburgh	684.728	533.388
96	Vermillion	1.564	1.218
97	Vigo	48.476	37.762
98	Wabash	11.728	9.136
99	Warren	1.955	1.523
100	Warrick	.000	.000
101	Washington	11.728	9.136
102	Wayne	137.806	107.348

	State	P04_97	A04_97
103	Wells	100.080	77.960
104	White	8.210	6.395
105	Whitley	1.955	1.523
106	Iowa	24406.584	18386.000
107	Kansas	6591.091	4432.000
108	Kentucky_E	1294.159	1268.000
109	Kentucky_W	863.107	846.000
110	Louisiana	3974.704	8121.000
111	Maine	408.998	211.000
112	Maryland	1855.530	1975.000
113	Massachusetts	1395.407	1309.000
114	Michigan_E	1544.771	1843.000
115	Michigan_W	1544.771	1843.000
116	Minnesota	7002.094	7368.000
117	Mississippi	4110.034	3075.000
118	Missouri	11014.891	9673.000
119	Montana	313.766	430.000
120	Nebraska	7560.458	6247.000
121	Nevada	196.480	206.000
122	New Hampshire	.000	277.000
123	New Jersey	175.428	987.000
124	New Mexico	97.237	997.000
125	New York	6199.134	5954.000
126	North Carolina	7552.438	8169.000
127	North Dakota	978.389	373.000
128	Ohio_N	2815.874	2088.000
129	Ohio_M	2815.874	2088.000
130	Ohio_S	2815.874	2888.000
131	Oklahoma	2515.140	4757.000
132	Oregon	1609.930	1752.000
133	Pennsylvania	3817.319	7247.000
134	Rhode Island	182.445	44.000
135	South Carolina	868.119	2000.000
136	South Dakota	950.320	1083.000
137	Tennessee	2926.144	3060.000
138	Texas	16690.748	17967.000
139	Utah	1425.480	1201.000
140	Vermont	525.282	749.000
141	Virginia	3478.492	4202.000
142	Washington	2679.542	3539.000
143	West Virginia	468.143	792.000
144	Wisconsin	5452.311	5445.000
145	Wyoming	182.445	250.000

	State	P05_97	A05_97
1	Alabama	1810.777	1232.000
2	Arizona	344.205	826.000
3	Arkansas	3626.484	2364.000
4	California	7819.083	10065.000
5	Colorado	1395.560	904.000
6	Connecticut	97.640	314.000
7	DC	.000	.000
8	Delaware	581.894	540.000
9	Florida	1909.403	3473.000
10	Georgia	2967.662	3150.000
11	Idaho	542.444	186.000
12	Illinois_N	2152.023	2448.000
13	Illinois_S	922.155	1049.000
14	Adams	10.051	9.204
15	Allen	48.314	57.643
16	Bartholomew	37.568	28.666
17	Benton	.000	.811
18	Blackford	1.738	2.220
19	Boone	.290	3.973
20	Brown	.290	1.429
21	Carroll	50.689	31.305
22	Cass	50.689	33.704
23	Clark	8.342	12.886
24	Clay	.290	2.796
25	Clinton	60.508	38.311
26	Crawford	.000	.886
27	Daviess	29.428	19.708
28	Dearborn	.290	3.979
29	Decatur	10.717	8.656
30	DeKalb	1.738	4.593
31	Delaware	3.621	12.961
32	Dubois	23.114	17.210
33	Elkhart	18.798	30.936
34	Fayette	.000	3.035
35	Floyd	21.000	18.353
36	Fountain	1.738	2.707
37	Franklin	.290	2.086
38	Fulton	4.490	4.350
39	Gibson	10.862	9.096
40	Grant	7.676	11.468
41	Greene	10.862	9.165
42	Hamilton	3.852	16.472
43	Hancock	.290	5.044
44	Harrison	21.000	15.256
45	Hendricks	13.353	16.053
46	Henry	1.738	5.534
47	Howard	4.605	13.768
48	Huntington	10.862	10.024
49	Jackson	1.043	4.617
50	Jasper	6.517	6.308
51	Jay	12.860	9.435

	State	P05_97	A05_97
52	Jefferson	.579	3.360
53	Jennings	.000	2.447
54	Johnson	.203	9.681
55	Knox	3.823	5.593
56	Kosciusko	26.532	22.056
57	LaGrange	5.156	6.178
58	Lake	32.701	60.541
59	La Porte	16.249	18.954
60	Lawrence	1.738	5.284
61	Madison	21.724	25.505
62	Marion	111.776	140.975
63	Marshall	12.368	11.420
64	Martin	1.738	1.901
65	Miami	1.738	3.998
66	Monroe	2.810	11.768
67	Montgomery	10.862	9.809
68	Morgan	.290	5.694
69	Newton	.290	1.443
70	Noble	21.724	17.150
71	Ohio	.000	.470
72	Orange	1.738	2.634
73	Owen	.290	1.963
74	Parke	5.069	4.400
75	Perry	.290	1.787
76	Pike	.000	1.085
77	Porter	9.327	17.668
78	Posey	1.738	3.298
79	Pulaski	1.999	2.325
80	Putnam	.290	3.305
81	Randolph	2.230	3.795
82	Ripley	.290	2.377
83	Rush	.753	2.006
84	St. Joseph	20.102	34.979
85	Scott	10.862	8.254
86	Shelby	5.069	6.777
87	Spencer	1.738	2.771
88	Starke	.000	2.082
89	Steuben	7.299	7.600
90	Sullivan	.000	1.858
91	Switzerland	.000	.745
92	Tippecanoe	18.653	24.575
93	Tipton	5.069	4.447
94	Union	.000	.615
95	Vanderburgh	101.464	73.770
96	Vermillion	.232	1.556
97	Vigo	7.183	13.286
98	Wabash	1.738	4.063
99	Warren	.290	.885
100	Warrick	.000	4.361
101	Washington	1.738	3.285
102	Wayne	20.420	18.269

	State	P05_97	A05_97
103	Wells	14.830	11.069
104	White	1.217	3.233
105	Whitley	.290	3.004
106	Iowa	4280.376	2860.000
107	Kansas	3076.150	1746.000
108	Kentucky_E	338.288	623.000
109	Kentucky_W	224.868	415.000
110	Louisiana	595.702	917.000
111	Maine	233.744	320.000
112	Maryland	1572.101	1360.000
113	Massachusetts	1266.360	1536.000
114	Michigan_E	1077.984	1264.000
115	Michigan_W	1077.984	1264.000
116	Minnesota	2127.367	1635.000
117	Missisippi	1568.156	1537.000
118	Missouri	1599.717	2126.000
119	Montana	161.747	146.000
120	Nebraska	5277.487	995.000
121	Nevada	140.049	324.000
122	New Hampshire	199.225	216.000
123	New Jersey	769.284	1488.000
124	New Mexico	183.445	251.000
125	New York	2202.323	3580.000
126	North Carolina	2782.244	2424.000
127	North Dakota	211.060	105.000
128	Ohio_N	616.414	926.000
129	Ohio_M	616.414	926.000
130	Ohio_S	615.427	926.000
131	Oklahoma	891.581	1264.000
132	Oregon	421.134	651.000
133	Pennsylvania	2407.465	3085.000
134	Rhode Island	193.307	120.000
135	South Carolina	1319.618	1052.000
136	South Dakota	746.600	162.000
137	Tennessee	1745.683	1709.000
138	Texas	5884.038	6215.000
139	Utah	388.587	398.000
140	Vermont	165.692	45.000
141	Virginia	2252.622	2019.000
142	Washington	1746.670	1838.000
143	West Virginia	255.442	245.000
144	Wisconsin	1988.304	1955.000
145	Wyoming	.000	48.000

	State	P06_97	A06_97
1	Alabama	385.586	1402.000
2	Arizona	624.329	1341.000
3	Arkansas	1422.471	1560.000
4	California	9968.288	11082.000
5	Colorado	946.982	1429.000
6	Connecticut	782.160	738.000
7	DC	.000	.000
8	Delaware	363.609	135.000
9	Florida	2246.586	3575.000
10	Georgia	1891.967	3222.000
11	Idaho	102.889	263.000
12	Illinois_N	6828.662	4206.000
13	Illinois_S	2926.855	1802.000
14	Adams	57.193	16.838
15	Allen	281.157	98.640
16	Bartholomew	122.911	44.463
17	Benton	.000	1.564
18	Blackford	4.306	3.668
19	Boone	17.940	7.452
20	Brown	1.148	2.860
21	Carroll	125.581	43.043
22	Cass	141.727	46.375
23	Clark	24.542	35.600
24	Clay	1.148	5.745
25	Clinton	182.200	56.496
26	Crawford	.000	1.714
27	Daviess	72.909	29.135
28	Dearborn	1.148	7.798
29	Decatur	26.551	12.427
30	DeKalb	16.749	12.283
31	Delaware	9.401	24.087
32	Dubois	89.557	25.753
33	Elkhart	142.157	78.834
34	Fayette	.000	4.236
35	Floyd	78.204	30.064
36	Fountain	6.889	4.510
37	Franklin	.718	3.771
38	Fulton	11.553	7.040
39	Gibson	36.469	13.771
40	Grant	94.365	20.010
41	Greene	29.494	13.956
42	Hamilton	18.328	31.316
43	Hancock	1.148	9.027
44	Harrison	52.026	22.920
45	Hendricks	40.616	26.548
46	Henry	6.803	9.343
47	Howard	14.295	17.413
48	Huntington	92.657	15.911
49	Jackson	2.583	11.001
50	Jasper	23.681	9.879
51	Jay	31.862	13.651

	State	P06_97	A06_97
52	Jefferson	1.435	6.780
53	Jennings	.000	4.608
54	Johnson	25.260	19.305
55	Knox	12.960	9.496
56	Kosciusko	70.899	39.356
57	LaGrange	15.357	9.823
58	Lake	88.423	134.802
59	La Porte	43.358	37.351
60	Lawrence	6.889	8.860
61	Madison	54.251	46.329
62	Marion	357.094	348.439
63	Marshall	31.072	19.581
64	Martin	4.306	3.077
65	Miami	4.736	8.307
66	Monroe	50.620	24.980
67	Montgomery	26.910	18.126
68	Morgan	76.066	18.337
69	Newton	8.252	2.815
70	Noble	56.404	28.683
71	Ohio	.000	.909
72	Orange	4.306	4.496
73	Owen	.718	3.698
74	Parke	12.558	6.762
75	Perry	1.148	3.358
76	Pike	.000	2.098
77	Porter	27.886	40.215
78	Posey	4.306	40.769
79	Pulaski	4.951	3.804
80	Putnam	8.252	5.967
81	Randolph	8.109	6.244
82	Ripley	3.301	5.693
83	Rush	2.296	3.595
84	St. Joseph	89.327	76.124
85	Scott	26.910	15.693
86	Shelby	12.558	14.842
87	Spencer	4.306	4.884
88	Starke	.000	5.099
89	Steuben	20.667	11.026
90	Sullivan	.000	3.719
91	Switzerland	.000	1.442
92	Tippecanoe	97.537	71.375
93	Tipton	12.558	6.890
94	Union	.000	2.050
95	Vanderburgh	251.807	154.528
96	Vermillion	.574	37.919
97	Vigo	93.145	43.655
98	Wabash	27.039	14.573
99	Warren	.718	1.586
100	Warrick	.000	9.960
101	Washington	4.306	5.751
102	Wayne	90.590	30.503

	State	P06_97	A06_97
103	Wells	37.172	16.131
104	White	10.549	5.072
105	Whitley	8.166	5.370
106	Iowa	7094.377	2204.000
107	Kansas	4443.225	1915.000
108	Kentucky_E	662.288	842.000
109	Kentucky_W	441.526	561.000
110	Louisiana	812.127	2536.000
111	Maine	269.710	531.000
112	Maryland	580.376	1182.000
113	Massachusetts	1536.349	1851.000
114	Michigan_E	1093.825	1697.000
115	Michigan_W	1093.825	1697.000
116	Minnesota	3691.034	1839.000
117	Mississippi	820.119	774.000
118	Missouri	5551.035	2803.000
119	Montana	425.543	196.000
120	Nebraska	2506.307	1051.000
121	Nevada	41.955	303.000
122	New Hampshire	.000	342.000
123	New Jersey	2259.572	3843.000
124	New Mexico	276.703	549.000
125	New York	5495.095	5895.000
126	North Carolina	1569.314	2733.000
127	North Dakota	840.097	284.000
128	Ohio_N	1998.852	1887.000
129	Ohio_M	1998.852	1886.000
130	Ohio_S	1997.853	1886.000
131	Oklahoma	862.074	952.000
132	Oregon	1549.335	1916.000
133	Pennsylvania	3467.274	5342.000
134	Rhode Island	176.810	317.000
135	South Carolina	870.065	1019.000
136	South Dakota	117.873	132.000
137	Tennessee	3071.699	2979.000
138	Texas	5476.116	7745.000
139	Utah	572.385	483.000
140	Vermont	29.968	245.000
141	Virginia	1912.944	1934.000
142	Washington	2141.699	2453.000
143	West Virginia	13.985	164.000
144	Wisconsin	2411.409	2322.000
145	Wyoming	42.954	48.000

	State	P07_97	A07_97
1	Alabama	4405.448	5548.000
2	Arizona	6435.272	7120.000
3	Arkansas	6051.494	5219.000
4	California	41801.783	42226.000
5	Colorado	5435.851	6474.000
6	Connecticut	1981.852	2906.000
7	DC	.000	.000
8	Delaware	471.727	1334.000
9	Florida	19127.918	18561.000
10	Georgia	12029.031	16057.000
11	Idaho	3358.055	1522.000
12	Illinois_N	18947.023	15173.000
13	Illinois_S	8120.296	6503.000
14	Adams	117.258	55.109
15	Allen	643.314	506.542
16	Bartholomew	158.337	227.643
17	Benton	17.880	27.534
18	Blackford	27.599	62.810
19	Boone	88.974	42.688
20	Brown	28.374	14.478
21	Carroll	73.839	140.697
22	Cass	111.935	159.572
23	Clark	183.305	114.182
24	Clay	49.579	25.159
25	Clinton	106.621	183.510
26	Crawford	19.597	9.709
27	Daviess	76.549	98.372
28	Dearborn	84.471	42.447
29	Decatur	53.994	48.590
30	DeKalb	109.046	59.121
31	Delaware	252.502	168.209
32	Dubois	89.984	114.895
33	Elkhart	377.860	290.140
34	Fayette	48.425	23.992
35	Floyd	149.092	134.698
36	Fountain	41.104	20.878
37	Franklin	40.724	20.772
38	Fulton	47.317	36.011
39	Gibson	94.253	55.909
40	Grant	156.924	131.358
41	Greene	76.095	56.955
42	Hamilton	319.873	162.746
43	Hancock	100.803	69.854
44	Harrison	83.720	81.556
45	Hendricks	191.037	122.077
46	Henry	92.825	55.789
47	Howard	167.233	89.260
48	Huntington	91.779	79.908
49	Jackson	79.275	91.060
50	Jasper	59.164	42.699
51	Jay	49.946	57.564

	State	P07_97	A07_97
52	Jefferson	72.231	30.427
53	Jennings	50.390	31.369
54	Johnson	218.533	120.816
55	Knox	77.011	52.411
56	Kosciusko	173.563	132.421
57	LaGrange	67.476	44.021
58	Lake	934.276	571.806
59	La Porte	223.437	192.992
60	Lawrence	87.301	46.649
61	Madison	265.030	194.431
62	Marion	1691.067	1360.080
63	Marshall	99.421	120.438
64	Martin	20.838	13.894
65	Miami	93.357	76.742
66	Monroe	357.328	135.989
67	Montgomery	104.040	79.433
68	Morgan	121.522	60.804
69	Newton	38.395	20.624
70	Noble	134.830	112.492
71	Ohio	10.390	5.148
72	Orange	63.501	21.932
73	Owen	39.889	20.358
74	Parke	41.654	27.993
75	Perry	49.215	18.429
76	Pike	23.986	11.884
77	Porter	280.162	156.376
78	Posey	51.740	29.205
79	Pulaski	40.221	18.550
80	Putnam	65.830	33.211
81	Randolph	52.985	30.833
82	Ripley	48.984	43.539
83	Rush	34.886	25.234
84	St. Joseph	541.381	352.972
85	Scott	51.894	46.973
86	Shelby	86.083	53.081
87	Spencer	39.212	22.998
88	Starke	44.576	28.488
89	Steuben	82.469	54.011
90	Sullivan	40.224	19.929
91	Switzerland	16.479	9.232
92	Tippecanoe	288.852	186.782
93	Tipton	34.657	33.985
94	Union	13.958	6.741
95	Vanderburgh	525.825	470.233
96	Vermillion	31.578	34.797
97	Vigo	206.486	171.823
98	Wabash	68.661	76.558
99	Warren	15.744	8.396
100	Warrick	95.925	48.419
101	Washington	53.520	29.039
102	Wayne	174.888	140.891

	State	P07_97	A07_97
103	Wells	88.486	67.605
104	White	74.383	32.656
105	Whitley	79.172	47.371
106	Iowa	14785.434	6603.000
107	Kansas	4274.524	4412.000
108	Kentucky_E	3796.800	3884.000
109	Kentucky_W	2531.533	2589.000
110	Louisiana	6837.039	9727.000
111	Maine	857.503	1220.000
112	Maryland	7579.609	6371.000
113	Massachusetts	4768.238	6221.000
114	Michigan_E	6257.375	6518.000
115	Michigan_W	6257.375	6518.000
116	Minnesota	13187.360	10292.000
117	Missisippi	3356.056	4336.000
118	Missouri	8071.324	9630.000
119	Montana	1004.418	1139.000
120	Nebraska	3705.853	3208.000
121	Nevada	1624.059	2089.000
122	New Hampshire	1352.217	1184.000
123	New Jersey	11930.088	13513.000
124	New Mexico	538.688	824.000
125	New York	21784.379	21844.000
126	North Carolina	11752.191	14276.000
127	North Dakota	2089.789	1104.000
128	Ohio_N	6972.960	5669.000
129	Ohio_M	6972.960	5669.000
130	Ohio_S	6972.960	5668.000
131	Oklahoma	919.467	2952.000
132	Oregon	4886.169	4735.000
133	Pennsylvania	18364.361	20026.000
134	Rhode Island	303.824	989.000
135	South Carolina	3358.055	4696.000
136	South Dakota	1260.270	1454.000
137	Tennessee	12358.840	10844.000
138	Texas	24064.059	25807.000
139	Utah	1611.067	2467.000
140	Vermont	455.736	632.000
141	Virginia	5611.749	7013.000
142	Washington	5789.646	5712.000
143	West Virginia	390.774	1648.000
144	Wisconsin	15078.265	13244.000
145	Wyoming	539.687	389.000

	State	P08_97	A08_97
1	Alabama	482.989	690.000
2	Arizona	1092.236	2095.000
3	Arkansas	338.693	514.000
4	California	12672.946	10838.000
5	Colorado	6544.399	1424.000
6	Connecticut	496.016	992.000
7	DC	.000	.000
8	Delaware	182.373	300.000
9	Florida	4557.330	4886.000
10	Georgia	1221.501	1886.000
11	Idaho	228.468	409.000
12	Illinois_N	2498.114	3037.000
13	Illinois_S	1071.193	1302.000
14	Adams	13.478	17.001
15	Allen	94.856	104.301
16	Bartholomew	19.281	21.221
17	Benton	1.654	2.123
18	Blackford	2.438	3.129
19	Boone	11.753	12.853
20	Brown	2.676	4.599
21	Carroll	3.471	4.455
22	Cass	10.850	13.562
23	Clark	17.297	21.857
24	Clay	4.670	5.933
25	Clinton	13.562	16.998
26	Crawford	1.813	2.327
27	Daviess	5.131	10.161
28	Dearborn	7.898	60.302
29	Decatur	4.252	5.457
30	DeKalb	9.741	10.743
31	Delaware	20.776	27.297
32	Dubois	14.502	14.251
33	Elkhart	53.594	55.477
34	Fayette	4.480	5.750
35	Floyd	18.468	21.227
36	Fountain	3.733	5.652
37	Franklin	3.748	4.811
38	Fulton	3.612	12.928
39	Gibson	7.835	8.910
40	Grant	30.773	28.844
41	Greene	6.366	7.805
42	Hamilton	30.751	38.431
43	Hancock	9.409	15.590
44	Harrison	5.782	7.422
45	Hendricks	18.586	22.994
46	Henry	9.036	11.244
47	Howard	15.283	23.569
48	Huntington	22.244	19.254
49	Jackson	7.069	9.073
50	Jasper	6.840	7.714
51	Jay	3.768	8.993

	State	P08_97	A08_97
52	Jefferson	5.421	7.650
53	Jennings	4.662	5.983
54	Johnson	24.890	29.672
55	Knox	7.703	9.394
56	Kosciusko	13.826	20.589
57	LaGrange	6.517	7.999
58	Lake	85.655	136.093
59	La Porte	19.762	40.940
60	Lawrence	8.545	14.759
61	Madison	23.148	29.649
62	Marion	166.902	294.744
63	Marshall	7.802	22.281
64	Martin	1.813	2.326
65	Miami	6.178	8.359
66	Monroe	31.063	38.262
67	Montgomery	6.459	8.494
68	Morgan	29.211	26.838
69	Newton	4.324	4.484
70	Noble	8.363	10.368
71	Ohio	.961	1.234
72	Orange	3.313	4.945
73	Owen	3.671	4.712
74	Parke	2.947	4.475
75	Perry	3.414	4.320
76	Pike	2.219	2.848
77	Porter	26.144	33.083
78	Posey	4.671	5.995
79	Pulaski	2.365	3.036
80	Putnam	7.869	9.035
81	Randolph	5.370	6.732
82	Ripley	5.129	8.136
83	Rush	3.280	4.353
84	St. Joseph	55.082	66.005
85	Scott	3.885	9.143
86	Shelby	7.432	9.539
87	Spencer	3.512	4.508
88	Starke	4.124	5.293
89	Steuben	6.223	7.622
90	Sullivan	3.721	6.002
91	Switzerland	1.524	1.957
92	Tippecanoe	37.542	41.132
93	Tipton	2.870	3.684
94	Union	1.259	1.615
95	Vanderburgh	29.792	51.526
96	Vermillion	2.906	3.730
97	Vigo	36.418	36.293
98	Wabash	11.468	11.505
99	Warren	1.437	1.845
100	Warrick	8.841	11.348
101	Washington	4.640	7.874
102	Wayne	21.929	23.387

	State	P08_97	A08_97
103	Wells	4.860	6.177
104	White	6.153	6.833
105	Whitley	7.006	7.939
106	Iowa	2108.316	917.000
107	Kansas	547.120	583.000
108	Kentucky_E	552.130	665.000
109	Kentucky_W	367.753	445.000
110	Louisiana	465.954	1308.000
111	Maine	167.343	297.000
112	Maryland	855.752	1206.000
113	Massachusetts	1417.903	2455.000
114	Michigan_E	662.356	1299.000
115	Michigan_W	662.356	1299.000
116	Minnesota	1076.203	1486.000
117	Mississippi	369.757	523.000
118	Missouri	3770.720	1687.000
119	Montana	170.349	266.000
120	Nebraska	337.691	360.000
121	Nevada	468.960	820.000
122	New Hampshire	705.444	273.000
123	New Jersey	2865.867	2421.000
124	New Mexico	316.648	604.000
125	New York	5911.102	3507.000
126	North Carolina	1698.477	1691.000
127	North Dakota	105.215	189.000
128	Ohio_N	966.980	1142.000
129	Ohio_M	966.980	1142.000
130	Ohio_S	966.980	1142.000
131	Oklahoma	544.114	818.000
132	Oregon	1056.162	1638.000
133	Pennsylvania	2519.158	3161.000
134	Rhode Island	362.743	861.000
135	South Carolina	737.510	1215.000
136	South Dakota	388.796	448.000
137	Tennessee	1477.024	2098.000
138	Texas	6044.375	5940.000
139	Utah	227.466	324.000
140	Vermont	68.140	224.000
141	Virginia	3316.791	2963.000
142	Washington	1329.722	1090.000
143	West Virginia	351.720	591.000
144	Wisconsin	1317.698	1676.000
145	Wyoming	131.269	123.000

	State	P09_97	A09_97
1	Alabama	50.765	71.000
2	Arizona	15.926	28.000
3	Arkansas	27.871	22.000
4	California	138.360	196.000
5	Colorado	9.954	9.000
6	Connecticut	25.880	25.000
7	DC	.000	.000
8	Delaware	5.972	3.000
9	Florida	43.797	78.000
10	Georgia	10.949	55.000
11	Idaho	.995	3.000
12	Illinois_N	86.599	57.000
13	Illinois_S	37.825	24.000
14	Adams	.285	.442
15	Allen	1.100	1.708
16	Bartholomew	.808	1.252
17	Benton	.065	.100
18	Blackford	.011	.017
19	Boone	.065	.100
20	Brown	.000	.000
21	Carroll	.404	.626
22	Cass	.011	.017
23	Clark	1.205	1.868
24	Clay	.011	.017
25	Clinton	.065	.100
26	Crawford	.000	.000
27	Daviess	.065	.100
28	Dearborn	.000	.000
29	Decatur	.011	.017
30	DeKalb	.011	.017
31	Delaware	.152	.235
32	Dubois	7.097	11.002
33	Elkhart	4.170	6.467
34	Fayette	.065	.100
35	Floyd	.477	.740
36	Fountain	.000	.000
37	Franklin	.000	.000
38	Fulton	.000	.000
39	Gibson	.000	.000
40	Grant	.188	.292
41	Greene	.011	.017
42	Hamilton	.300	.469
43	Hancock	.065	.100
44	Harrison	.699	1.083
45	Hendricks	.011	.017
46	Henry	.188	.292
47	Howard	.404	.626
48	Huntington	.000	.000
49	Jackson	.065	.100
50	Jasper	.011	.017
51	Jay	.065	.100

	State	P09_97	A09_97
52	Jefferson	.011	.017
53	Jennings	.000	.000
54	Johnson	.094	.145
55	Knox	.011	.017
56	Kosciusko	.349	.544
57	LaGrange	.324	.503
58	Lake	.272	.422
59	La Porte	.305	.492
60	Lawrence	.011	.017
61	Madison	.462	.720
62	Marion	1.480	2.314
63	Marshall	.065	.100
64	Martin	.000	.000
65	Miami	.404	.626
66	Monroe	.075	.117
67	Montgomery	.000	.000
68	Morgan	.011	.017
69	Newton	.065	.100
70	Noble	.065	.100
71	Ohio	.000	.000
72	Orange	1.885	2.922
73	Owen	.000	.000
74	Parke	.011	.017
75	Perry	.316	.489
76	Pike	.000	.000
77	Porter	.171	.285
78	Posey	.000	.000
79	Pulaski	.011	.017
80	Putnam	.000	.000
81	Randolph	.127	.217
82	Ripley	.188	.292
83	Rush	.000	.000
84	St. Joseph	.200	.314
85	Scott	.065	.100
86	Shelby	.358	.554
87	Spencer	.808	1.252
88	Starke	.011	.017
89	Steuben	.011	.017
90	Sullivan	.000	.000
91	Switzerland	.011	.017
92	Tippecanoe	.808	1.252
93	Tipton	.000	.000
94	Union	.000	.000
95	Vanderburgh	.451	.703
96	Vermillion	.000	.000
97	Vigo	.065	.100
98	Wabash	.011	.017
99	Warren	.000	.000
100	Warrick	.011	.017
101	Washington	1.885	2.922
102	Wayne	.769	1.192

	State	P09_97	A09_97
103	Wells	.030	.050
104	White	.528	.876
105	Whitley	.047	.073
106	Iowa	23.890	35.000
107	Kansas	7.963	29.000
108	Kentucky_E	150.305	83.000
109	Kentucky_W	99.540	56.000
110	Louisiana	2.986	63.000
111	Maine	17.917	35.000
112	Maryland	9.954	12.000
113	Massachusetts	64.701	54.000
114	Michigan_E	31.853	29.000
115	Michigan_W	31.853	29.000
116	Minnesota	37.825	43.000
117	Mississippi	6.968	21.000
118	Missouri	111.484	136.000
119	Montana	1.991	6.000
120	Nebraska	12.940	13.000
121	Nevada	12.940	14.000
122	New Hampshire	10.949	15.000
123	New Jersey	49.770	111.000
124	New Mexico	.995	2.000
125	New York	50.765	103.000
126	North Carolina	2041.558	1788.000
127	North Dakota	2.986	7.000
128	Ohio_N	16.922	25.000
129	Ohio_M	16.922	25.000
130	Ohio_S	16.922	25.000
131	Oklahoma	1.991	33.000
132	Oregon	11.945	12.000
133	Pennsylvania	153.291	129.000
134	Rhode Island	.000	9.000
135	South Carolina	4.977	12.000
136	South Dakota	.995	2.000
137	Tennessee	114.471	89.000
138	Texas	28.866	73.000
139	Utah	.000	10.000
140	Vermont	2.986	13.000
141	Virginia	426.030	243.000
142	Washington	7.963	46.000
143	West Virginia	18.913	19.000
144	Wisconsin	14.931	37.000
145	Wyoming	1.991	3.000

	State	P10_97	A10_97
1	Alabama	259.000	308.278
2	Arizona	21.000	148.580
3	Arkansas	35.000	5.054
4	California	2021.000	1425.155
5	Colorado	90.000	110.172
6	Connecticut	211.000	352.751
7	Delaware	.000	159.698
8	DC	.000	.000
9	Florida	850.000	440.686
10	Georgia	333.000	240.558
11	Idaho	75.000	1.011
12	Illinois_N	607.000	835.889
13	Illinois_S	260.000	357.805
14	Adams	4.544	3.332
15	Allen	39.038	7.140
16	Bartholomew	5.304	3.332
17	Benton	1.075	.000
18	Blackford	1.666	.000
19	Boone	2.749	.000
20	Brown	.598	.190
21	Carroll	1.481	.000
22	Cass	4.091	.000
23	Clark	6.135	12.929
24	Clay	1.700	1.142
25	Clinton	2.305	3.332
26	Crawford	.391	.000
27	Daviess	1.919	1.142
28	Dearborn	2.222	.190
29	Decatur	3.133	.000
30	DeKalb	7.096	4.303
31	Delaware	7.064	1.619
32	Dubois	5.616	1.142
33	Elkhart	24.614	33.322
34	Fayette	1.639	.000
35	Floyd	7.990	1.942
36	Fountain	1.111	.190
37	Franklin	1.485	.000
38	Fulton	1.604	.190
39	Gibson	2.487	.000
40	Grant	5.126	1.809
41	Greene	1.581	.000
42	Hamilton	15.484	1.142
43	Hancock	3.702	.000
44	Harrison	2.030	.933
45	Hendricks	4.958	.190
46	Henry	3.637	.000
47	Howard	5.118	.000
48	Huntington	3.209	1.142
49	Jackson	3.863	3.332
50	Jasper	1.772	.000
51	Jay	2.029	.000

	State	P10_97	A10_97
52	Jefferson	1.816	1.142
53	Jennings	2.935	.190
54	Johnson	6.843	1.142
55	Knox	3.246	.000
56	Kosciusko	6.193	6.322
57	LaGrange	4.203	.190
58	Lake	27.666	28.410
59	La Porte	9.243	6.303
60	Lawrence	2.568	.000
61	Madison	7.562	7.140
62	Marion	83.410	115.276
63	Marshall	8.239	2.475
64	Martin	.651	.000
65	Miami	4.045	1.142
66	Monroe	9.438	3.104
67	Montgomery	3.669	3.332
68	Morgan	2.935	7.140
69	Newton	2.047	.190
70	Noble	7.378	4.113
71	Ohio	.207	.000
72	Orange	1.378	.000
73	Owen	.859	.000
74	Parke	1.312	.000
75	Perry	.902	.000
76	Pike	.658	.000
77	Porter	9.595	8.816
78	Posey	2.512	33.322
79	Pulaski	1.599	.000
80	Putnam	4.360	.000
81	Randolph	1.421	.000
82	Ripley	1.742	1.142
83	Rush	1.174	.000
84	St. Joseph	28.150	16.375
85	Scott	3.441	3.332
86	Shelby	7.051	3.656
87	Spencer	2.659	.190
88	Starke	1.502	1.142
89	Steuben	2.844	.000
90	Sullivan	1.840	.190
91	Switzerland	.792	.000
92	Tippecanoe	9.562	31.266
93	Tipton	1.232	.190
94	Union	.527	.819
95	Vanderburgh	20.705	44.633
96	Vermillion	.955	33.322
97	Vigo	11.112	19.613
98	Wabash	2.082	7.140
99	Warren	.589	.000
100	Warrick	2.723	1.523
101	Washington	1.582	.000
102	Wayne	7.247	2.647

	State	P10_97	A10_97
103	Wells	9.275	.000
104	White	3.133	.000
105	Whitley	2.625	.190
106	Iowa	209.000	154.644
107	Kansas	182.000	146.558
108	Kentucky_E	148.000	18.193
109	Kentucky_W	99.000	12.129
110	Louisiana	.000	18.193
111	Maine	74.000	38.408
112	Maryland	65.000	312.321
113	Massachusetts	405.000	267.848
114	Michigan_E	224.000	254.708
115	Michigan_W	224.000	254.708
116	Minnesota	346.000	321.418
117	Mississippi	.000	17.183
118	Missouri	367.000	491.223
119	Montana	.000	11.118
120	Nebraska	120.000	61.656
121	Nevada	.000	28.301
122	New Hampshire	72.000	59.634
123	New Jersey	2140.000	2110.442
124	New Mexico	15.000	7.075
125	New York	1054.000	1041.070
126	North Carolina	501.000	967.286
127	North Dakota	47.000	1.011
128	Ohio_N	264.000	352.751
129	Ohio_M	264.000	352.751
130	Ohio_S	263.000	352.751
131	Oklahoma	198.000	83.892
132	Oregon	208.000	98.043
133	Pennsylvania	724.000	290.085
134	Rhode Island	60.000	5.054
135	South Carolina	.000	833.867
136	South Dakota	49.000	16.172
137	Tennessee	277.000	144.537
138	Texas	448.000	540.750
139	Utah	120.000	19.204
140	Vermont	285.000	175.870
141	Virginia	364.000	432.600
142	Washington	342.000	117.247
143	West Virginia	82.000	307.267
144	Wisconsin	356.000	280.988
145	Wyoming	.000	27.290

	State	P11_97	A11_97
1	Alabama	11337.540	11328.000
2	Arizona	8427.198	8612.000
3	Arkansas	5327.964	6746.000
4	California	38670.965	39163.000
5	Colorado	4754.291	5058.000
6	Connecticut	2573.534	4286.000
7	Delaware	1608.084	1118.000
8	DC	.000	.000
9	Florida	24852.839	24741.000
10	Georgia	4350.521	4869.000
11	Idaho	2723.448	3186.000
12	Illinois_N	33608.849	22123.000
13	Illinois_S	14403.793	9481.000
14	Adams	12.543	44.756
15	Allen	721.387	436.863
16	Bartholomew	62.990	94.321
17	Benton	2.490	12.833
18	Blackford	6.179	18.914
19	Boone	34.123	59.280
20	Brown	.922	19.962
21	Carroll	3.966	26.931
22	Cass	25.915	54.272
23	Clark	103.754	127.015
24	Clay	2.582	35.433
25	Clinton	13.557	45.410
26	Crawford	.922	14.065
27	Daviess	8.946	39.808
28	Dearborn	14.941	60.476
29	Decatur	10.975	32.988
30	DeKalb	27.668	52.523
31	Delaware	94.715	160.383
32	Dubois	107.074	52.696
33	Elkhart	403.302	238.752
34	Fayette	7.747	34.754
35	Floyd	55.981	94.788
36	Fountain	2.306	24.179
37	Franklin	5.534	29.078
38	Fulton	4.335	27.223
39	Gibson	9.130	43.085
40	Grant	44.729	99.189
41	Greene	7.931	44.600
42	Hamilton	292.262	222.303
43	Hancock	15.955	72.197
44	Harrison	16.877	44.861
45	Hendricks	76.086	130.240
46	Henry	19.828	65.474
47	Howard	56.903	113.227
48	Huntington	20.658	50.797
49	Jackson	23.425	54.841
50	Jasper	11.251	39.111
51	Jay	5.626	29.234

	State	P11_97	A11_97
52	Jefferson	14.848	42.054
53	Jennings	6.456	36.165
54	Johnson	53.399	147.248
55	Knox	33.662	53.304
56	Kosciusko	46.943	97.691
57	LaGrange	22.319	45.776
58	Lake	480.125	650.802
59	La Porte	76.455	147.577
60	Lawrence	14.756	61.509
61	Madison	52.937	178.788
62	Marion	2023.425	1146.358
63	Marshall	45.098	59.732
64	Martin	2.029	14.062
65	Miami	17.984	47.133
66	Monroe	49.986	160.132
67	Montgomery	14.756	50.109
68	Morgan	29.973	87.067
69	Newton	2.767	19.589
70	Noble	18.722	60.094
71	Ohio	.000	7.457
72	Orange	4.150	25.705
73	Owen	5.534	28.480
74	Parke	5.534	22.861
75	Perry	5.349	25.685
76	Pike	7.378	17.215
77	Porter	125.150	193.974
78	Posey	21.027	36.240
79	Pulaski	9.407	18.352
80	Putnam	4.611	47.097
81	Randolph	10.053	36.880
82	Ripley	34.585	35.007
83	Rush	10.606	24.650
84	St. Joseph	412.893	354.126
85	Scott	5.810	30.141
86	Shelby	65.664	57.657
87	Spencer	6.456	27.249
88	Starke	3.873	31.992
89	Steuben	18.998	43.493
90	Sullivan	5.257	28.869
91	Switzerland	.922	11.827
92	Tippecanoe	63.820	196.199
93	Tipton	6.640	22.267
94	Union	5.534	9.764
95	Vanderburgh	325.002	230.336
96	Vermillion	1.014	22.544
97	Vigo	85.862	142.983
98	Wabash	14.941	46.866
99	Warren	5.534	11.151
100	Warrick	12.082	68.592
101	Washington	7.562	36.000
102	Wayne	96.376	96.042

	State	P11_97	A11_97
103	Wells	9.499	36.906
104	White	12.543	33.784
105	Whitley	16.324	40.556
106	Iowa	11155.643	11873.000
107	Kansas	13952.050	9939.000
108	Kentucky_E	7068.972	5020.000
109	Kentucky_W	4712.315	3347.000
110	Louisiana	11038.710	11466.000
111	Maine	2414.624	3254.000
112	Maryland	13069.553	13376.000
113	Massachusetts	8477.170	8261.000
114	Michigan_E	8531.139	7483.000
115	Michigan_W	8531.139	7483.000
116	Minnesota	12051.133	12079.000
117	Mississippi	4734.302	7202.000
118	Missouri	2497.577	5968.000
119	Montana	1874.932	53.000
120	Nebraska	4970.168	4374.000
121	Nevada	4389.499	4575.000
122	New Hampshire	815.535	369.000
123	New Jersey	33886.691	21316.000
124	New Mexico	177.899	4603.000
125	New York	5046.125	9076.000
126	North Carolina	12749.735	12113.000
127	North Dakota	1956.885	1685.000
128	Ohio_N	1244.291	9750.000
129	Ohio_M	1243.292	9749.000
130	Ohio_S	1243.292	9749.000
131	Oklahoma	8525.142	8748.000
132	Oregon	3241.153	3285.000
133	Pennsylvania	11087.682	15928.000
134	Rhode Island	2880.359	2659.000
135	South Carolina	5904.635	4865.000
136	South Dakota	1937.896	1930.000
137	Tennessee	16966.332	5852.000
138	Texas	23585.561	25280.000
139	Utah	6531.278	5498.000
140	Vermont	1137.352	348.000
141	Virginia	8745.017	9253.000
142	Washington	4928.192	4851.000
143	West Virginia	792.548	1036.000
144	Wisconsin	8752.013	8528.000
145	Wyoming	.000	1269.000

	State	P12_97	A12_97
1	Alabama	36191.948	33018.000
2	Arizona	17410.835	22365.000
3	Arkansas	19596.684	16020.000
4	California	158887.361	159098.000
5	Colorado	13651.814	14502.000
6	Connecticut	9898.789	10876.000
7	Delaware	11781.798	4262.000
8	DC	.000	.000
9	Florida	65627.453	66685.000
10	Georgia	110374.898	112201.000
11	Idaho	9173.171	9129.000
12	Illinois_N	48963.226	52726.000
13	Illinois_S	20983.954	22597.000
14	Adams	1257.523	306.533
15	Allen	5758.001	3318.648
16	Bartholomew	1490.093	1157.045
17	Benton	62.095	52.704
18	Blackford	421.037	23.054
19	Boone	15.840	3.842
20	Brown	5.491	3.842
21	Carroll	960.860	672.414
22	Cass	1751.238	703.931
23	Clark	627.232	296.171
24	Clay	186.601	12.626
25	Clinton	1328.103	919.576
26	Crawford	.000	.000
27	Daviess	619.943	390.384
28	Dearborn	67.586	1416.447
29	Decatur	591.247	150.952
30	DeKalb	2224.894	2116.267
31	Delaware	335.344	709.355
32	Dubois	1499.678	318.654
33	Elkhart	7137.863	1994.686
34	Fayette	.000	52.704
35	Floyd	1902.837	287.356
36	Fountain	32.944	681.850
37	Franklin	186.601	3.842
38	Fulton	229.993	408.439
39	Gibson	593.992	144.089
40	Grant	786.399	327.739
41	Greene	220.090	309.841
42	Hamilton	1502.212	662.227
43	Hancock	24.119	12.626
44	Harrison	579.181	278.572
45	Hendricks	329.404	342.885
46	Henry	299.202	424.650
47	Howard	561.292	836.794
48	Huntington	550.228	304.570
49	Jackson	505.879	460.671
50	Jasper	185.634	86.453
51	Jay	424.894	287.506

	State	P12_97	A12_97
52	Jefferson	206.283	47.986
53	Jennings	1249.372	503.939
54	Johnson	810.780	278.241
55	Knox	82.825	380.117
56	Kosciusko	1671.882	1968.568
57	LaGrange	888.111	89.211
58	Lake	1285.628	19624.083
59	La Porte	1142.903	1640.207
60	Lawrence	284.131	1689.182
61	Madison	783.772	515.152
62	Marion	4326.798	7699.159
63	Marshall	2767.173	912.787
64	Martin	32.944	176.773
65	Miami	435.228	35.087
66	Monroe	421.974	226.374
67	Montgomery	982.085	802.884
68	Morgan	113.859	68.579
69	Newton	471.203	157.561
70	Noble	2681.335	1154.914
71	Ohio	.000	.000
72	Orange	214.054	42.538
73	Owen	100.988	76.040
74	Parke	277.196	86.726
75	Perry	90.639	405.438
76	Pike	.000	52.704
77	Porter	511.813	7294.669
78	Posey	373.716	95.252
79	Pulaski	37.885	180.231
80	Putnam	1221.516	3.842
81	Randolph	104.373	297.496
82	Ripley	15.840	23.327
83	Rush	90.562	351.421
84	St. Joseph	3544.755	2030.397
85	Scott	1556.432	480.354
86	Shelby	2183.510	537.182
87	Spencer	421.037	176.773
88	Starke	181.110	.000
89	Steuben	901.382	609.101
90	Sullivan	181.110	.000
91	Switzerland	181.110	.000
92	Tippecanoe	1064.868	1856.836
93	Tipton	96.086	119.945
94	Union	.000	.000
95	Vanderburgh	5698.968	2291.908
96	Vermillion	4.393	3.074
97	Vigo	1893.156	436.721
98	Wabash	228.245	693.883
99	Warren	15.840	3.842
100	Warrick	24.541	3306.011
101	Washington	264.765	51.322
102	Wayne	1569.998	1095.858

	State	P12_97	A12_97
103	Wells	1071.498	362.481
104	White	406.717	80.875
105	Whitley	479.482	537.028
106	Iowa	38559.702	39757.000
107	Kansas	12223.565	13631.000
108	Kentucky_E	33080.586	30929.000
109	Kentucky_W	22054.390	20619.000
110	Louisiana	15856.653	24995.000
111	Maine	1007.470	1378.000
112	Maryland	23614.569	25334.000
113	Massachusetts	18521.250	17176.000
114	Michigan_E	40895.472	32694.000
115	Michigan_W	40895.472	32694.000
116	Minnesota	33125.563	32594.000
117	Missisippi	7727.932	14418.000
118	Missouri	59839.500	45981.000
119	Montana	1875.013	4469.000
120	Nebraska	19138.925	19831.000
121	Nevada	2864.492	2750.000
122	New Hampshire	11323.040	11026.000
123	New Jersey	35520.302	37292.000
124	New Mexico	1846.028	1934.000
125	New York	70769.747	71165.000
126	North Carolina	77931.976	73143.000
127	North Dakota	4778.485	4491.000
128	Ohio_N	33127.562	33160.000
129	Ohio_M	33126.562	33160.000
130	Ohio_S	33126.562	33159.000
131	Oklahoma	24167.278	22583.000
132	Oregon	18941.029	25899.000
133	Pennsylvania	114752.594	106516.000
134	Rhode Island	10554.444	9977.000
135	South Carolina	23573.591	23991.000
136	South Dakota	8171.698	7805.000
137	Tennessee	70347.969	78081.000
138	Texas	71808.200	77290.000
139	Utah	14112.571	20862.000
140	Vermont	2192.846	4176.000
141	Virginia	63177.743	57398.000
142	Washington	34448.866	27563.000
143	West Virginia	5664.018	11282.000
144	Wisconsin	71263.487	72378.000
145	Wyoming	941.504	1298.000

	State	P13_97	A13_97
1	Alabama	2909.486	2903.000
2	Arizona	69.107	2305.000
3	Arkansas	1897.926	8989.000
4	California	3479.364	4127.000
5	Colorado	916.413	1004.000
6	Connecticut	786.212	735.000
7	Delaware	.000	1205.000
8	DC	.000	.000
9	Florida	16386.264	15851.000
10	Georgia	22344.450	16134.000
11	Idaho	812.252	1341.000
12	Illinois_N	9915.287	13907.000
13	Illinois_S	4249.552	5960.000
14	Adams	52.435	55.586
15	Allen	112.360	417.522
16	Bartholomew	52.435	145.828
17	Benton	.000	10.119
18	Blackford	.000	89.548
19	Boone	.000	42.140
20	Brown	2.996	8.317
21	Carroll	.000	59.884
22	Cass	.000	98.558
23	Clark	203.447	149.293
24	Clay	17.978	15.248
25	Clinton	52.435	35.071
26	Crawford	.000	.000
27	Daviess	17.978	21.625
28	Dearborn	2.996	30.912
29	Decatur	.000	395.204
30	DeKalb	67.716	446.771
31	Delaware	25.468	260.050
32	Dubois	17.978	21.070
33	Elkhart	524.347	866.095
34	Fayette	.000	51.982
35	Floyd	30.562	86.776
36	Fountain	2.996	8.317
37	Franklin	.000	1.386
38	Fulton	2.996	117.688
39	Gibson	.000	18.298
40	Grant	28.465	23.981
41	Greene	.000	12.892
42	Hamilton	17.978	163.571
43	Hancock	.000	63.626
44	Harrison	14.682	10.258
45	Hendricks	2.996	27.863
46	Henry	.000	48.517
47	Howard	.000	28.971
48	Huntington	17.978	138.758
49	Jackson	52.435	95.786
50	Jasper	.000	93.568
51	Jay	.000	131.273

	State	P13_97	A13_97
52	Jefferson	17.978	19.268
53	Jennings	2.996	88.439
54	Johnson	17.978	149.432
55	Knox	.000	16.218
56	Kosciusko	99.476	199.058
57	LaGrange	2.996	29.526
58	Lake	447.043	350.569
59	La Porte	99.177	302.468
60	Lawrence	.000	79.706
61	Madison	112.360	145.828
62	Marion	1813.942	1399.364
63	Marshall	38.952	142.085
64	Martin	.000	1.386
65	Miami	17.978	36.596
66	Monroe	48.839	53.646
67	Montgomery	52.435	88.994
68	Morgan	112.360	44.913
69	Newton	2.996	8.317
70	Noble	64.719	193.929
71	Ohio	.000	1.386
72	Orange	.000	8.317
73	Owen	.000	1.802
74	Parke	.000	1.386
75	Perry	.000	8.317
76	Pike	.000	8.317
77	Porter	138.727	214.722
78	Posey	524.347	8.317
79	Pulaski	.000	24.258
80	Putnam	.000	1.386
81	Randolph	.000	15.387
82	Ripley	17.978	29.110
83	Rush	.000	8.317
84	St. Joseph	257.679	609.510
85	Scott	52.435	12.199
86	Shelby	57.528	50.873
87	Spencer	2.996	8.317
88	Starke	17.978	.000
89	Steuben	.000	187.968
90	Sullivan	2.996	1.386
91	Switzerland	.000	.000
92	Tippecanoe	491.987	84.419
93	Tipton	2.996	17.189
94	Union	12.884	1.386
95	Vanderburgh	702.326	266.565
96	Vermillion	524.347	24.258
97	Vigo	308.616	92.875
98	Wabash	112.360	140.699
99	Warren	.000	17.189
100	Warrick	23.970	32.298
101	Washington	.000	84.419
102	Wayne	41.648	88.162

	State	P13_97	A13_97
103	Wells	.000	84.697
104	White	.000	130.302
105	Whitley	2.996	97.172
106	Iowa	4677.211	6802.000
107	Kansas	3771.815	1161.000
108	Kentucky_E	2244.460	4687.000
109	Kentucky_W	1496.307	2884.000
110	Louisiana	7259.192	2709.000
111	Maine	456.704	1604.000
112	Maryland	2994.617	3059.000
113	Massachusetts	394.608	1332.000
114	Michigan_E	4618.120	3289.000
115	Michigan_W	4618.120	3289.000
116	Minnesota	2327.589	3972.000
117	Mississippi	1319.034	2475.000
118	Missouri	5827.985	1735.000
119	Montana	773.192	669.000
120	Nebraska	736.135	1015.000
121	Nevada	1093.686	161.000
122	New Hampshire	1408.171	316.000
123	New Jersey	17835.498	4362.000
124	New Mexico	358.553	399.000
125	New York	24618.957	20171.000
126	North Carolina	1970.037	1573.000
127	North Dakota	436.673	432.000
128	Ohio_N	5912.115	5913.000
129	Ohio_M	5911.114	5913.000
130	Ohio_S	5911.114	5913.000
131	Oklahoma	1000.543	2649.000
132	Oregon	1162.793	5472.000
133	Pennsylvania	8842.633	16380.000
134	Rhode Island	682.052	1360.000
135	South Carolina	971.498	1249.000
136	South Dakota	1545.383	221.000
137	Tennessee	554.855	3912.000
138	Texas	20430.499	14532.000
139	Utah	1481.284	516.000
140	Vermont	143.221	101.000
141	Virginia	5136.920	10442.000
142	Washington	848.308	1291.000
143	West Virginia	3651.630	819.000
144	Wisconsin	4729.291	6180.000
145	Wyoming	4604.098	668.000

	State	P14_97	A14_97
1	Alabama	423.968	2003.000
2	Arizona	9120.331	8188.000
3	Arkansas	423.968	208.000
4	California	77.359	673.000
5	Colorado	68.317	32.000
6	Connecticut	423.968	505.000
7	Delaware	423.968	67.000
8	DC	.000	.000
9	Florida	305.418	212.000
10	Georgia	423.968	574.000
11	Idaho	192.895	16.000
12	Illinois_N	174.811	2358.000
13	Illinois_S	75.350	1010.000
14	Adams	.000	35.969
15	Allen	.000	509.118
16	Bartholomew	.000	146.754
17	Benton	.000	12.332
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	.000	26.514
24	Clay	.000	2.055
25	Clinton	.000	.000
26	Crawford	.000	.000
27	Daviess	.000	.000
28	Dearborn	.000	.000
29	Decatur	.000	2.055
30	DeKalb	.000	489.798
31	Delaware	.000	147.371
32	Dubois	.000	.000
33	Elkhart	.000	247.057
34	Fayette	.000	12.332
35	Floyd	.000	2.055
36	Fountain	.000	154.154
37	Franklin	.000	.000
38	Fulton	.000	77.077
39	Gibson	.000	.000
40	Grant	.000	35.969
41	Greene	.000	35.969
42	Hamilton	.000	93.725
43	Hancock	.000	2.055
44	Harrison	.000	.000
45	Hendricks	.000	35.969
46	Henry	.000	77.077
47	Howard	.000	154.154
48	Huntington	.000	34.736
49	Jackson	.000	101.741
50	Jasper	.000	.000
51	Jay	.000	.000

	State	P14_97	A14_97
52	Jefferson	.000	2.055
53	Jennings	.000	12.332
54	Johnson	.000	61.661
55	Knox	.000	77.077
56	Kosciusko	.000	359.692
57	LaGrange	.000	2.055
58	Lake	.000	4302.533
59	La Porte	.000	325.984
60	Lawrence	.000	359.692
61	Madison	.000	47.479
62	Marion	.000	750.215
63	Marshall	.000	78.516
64	Martin	.000	35.969
65	Miami	.000	.000
66	Monroe	.000	.000
67	Montgomery	.000	154.154
68	Morgan	.000	12.332
69	Newton	.000	35.969
70	Noble	.000	153.537
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	77.077
76	Pike	.000	12.332
77	Porter	.000	1675.137
78	Posey	.000	.000
79	Pulaski	.000	35.969
80	Putnam	.000	.000
81	Randolph	.000	62.689
82	Ripley	.000	.000
83	Rush	.000	77.077
84	St. Joseph	.000	358.870
85	Scott	.000	2.055
86	Shelby	.000	109.963
87	Spencer	.000	35.969
88	Starke	.000	.000
89	Steuben	.000	102.975
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	.000	359.692
93	Tipton	.000	12.332
94	Union	.000	.000
95	Vanderburgh	.000	35.969
96	Vermillion	.000	.000
97	Vigo	.000	77.077
98	Wabash	.000	154.154
99	Warren	.000	.000
100	Warrick	.000	770.769
101	Washington	.000	2.055
102	Wayne	.000	188.479

	State	P14_97	A14_97
103	Wells	.000	35.969
104	White	.000	12.332
105	Whitley	.000	124.762
106	Iowa	423.968	856.000
107	Kansas	423.968	240.000
108	Kentucky_E	254.180	805.000
109	Kentucky_W	169.788	536.000
110	Louisiana	423.968	339.000
111	Maine	423.968	65.000
112	Maryland	423.968	14.000
113	Massachusetts	423.968	58.000
114	Michigan_E	7432.497	8080.000
115	Michigan_W	7432.497	8080.000
116	Minnesota	47607.966	8023.000
117	Missisippi	423.968	245.000
118	Missouri	2092.713	2021.000
119	Montana	491.280	445.000
120	Nebraska	423.968	102.000
121	Nevada	55.256	34.000
122	New Hampshire	.000	14.000
123	New Jersey	423.968	79.000
124	New Mexico	492.285	152.000
125	New York	1362.323	1025.000
126	North Carolina	423.968	76.000
127	North Dakota	423.968	11.000
128	Ohio_N	141.657	4188.000
129	Ohio_M	141.657	4188.000
130	Ohio_S	140.653	4187.000
131	Oklahoma	423.968	10.000
132	Oregon	423.968	42.000
133	Pennsylvania	723.357	5193.000
134	Rhode Island	423.968	297.000
135	South Carolina	140.653	102.000
136	South Dakota	.000	53.000
137	Tennessee	423.968	1867.000
138	Texas	423.968	2529.000
139	Utah	957.444	3706.000
140	Vermont	423.968	23.000
141	Virginia	31.145	102.000
142	Washington	423.968	232.000
143	West Virginia	423.968	978.000
144	Wisconsin	423.968	2331.000
145	Wyoming	423.968	.000

	State	P15_97	A15_97
1	Alabama	30993.076	49921.000
2	Arizona	13010.032	23776.000
3	Arkansas	409.001	12332.000
4	California	2454.006	5556.000
5	Colorado	37648.093	26073.000
6	Connecticut	.000	1739.000
7	Delaware	.000	357.000
8	DC	.000	.000
9	Florida	.000	27426.000
10	Georgia	2099.005	35553.000
11	Idaho	791.002	3828.000
12	Illinois_N	52725.130	54265.000
13	Illinois_S	22597.056	23257.000
14	Adams	226.683	487.618
15	Allen	321.134	1596.237
16	Bartholomew	.000	998.253
17	Benton	.000	.000
18	Blackford	37.780	82.937
19	Boone	37.780	44.454
20	Brown	.000	7.697
21	Carroll	226.683	1567.456
22	Cass	226.683	1567.456
23	Clark	661.158	864.919
24	Clay	226.683	228.242
25	Clinton	.000	1607.827
26	Crawford	661.158	643.256
27	Daviess	1416.768	2160.384
28	Dearborn	226.683	228.242
29	Decatur	226.683	505.320
30	DeKalb	173.790	215.264
31	Delaware	1416.768	1474.614
32	Dubois	226.683	834.736
33	Elkhart	226.683	720.057
34	Fayette	37.780	36.758
35	Floyd	.000	558.006
36	Fountain	.000	46.180
37	Franklin	37.780	44.454
38	Fulton	37.780	156.055
39	Gibson	1594.336	1839.791
40	Grant	226.683	424.506
41	Greene	661.158	931.880
42	Hamilton	661.158	745.622
43	Hancock	37.780	44.454
44	Harrison	298.466	848.390
45	Hendricks	226.683	575.360
46	Henry	37.780	82.937
47	Howard	226.683	342.922
48	Huntington	283.354	564.305
49	Jackson	37.780	64.465
50	Jasper	37.780	209.932
51	Jay	226.683	562.276

	State	P15_97	A15_97
52	Jefferson	.000	15.393
53	Jennings	226.683	220.545
54	Johnson	37.780	42.145
55	Knox	1783.238	1836.550
56	Kosciusko	37.780	741.769
57	LaGrange	37.780	173.758
58	Lake	226.683	1089.495
59	La Porte	102.007	531.026
60	Lawrence	238.017	277.752
61	Madison	226.683	797.793
62	Marion	661.158	3613.387
63	Marshall	37.780	365.404
64	Martin	.000	46.180
65	Miami	226.683	266.725
66	Monroe	525.149	585.587
67	Montgomery	37.780	325.381
68	Morgan	226.683	228.242
69	Newton	226.683	228.242
70	Noble	37.780	614.005
71	Ohio	.000	.000
72	Orange	207.793	248.346
73	Owen	37.780	44.454
74	Parke	.000	134.691
75	Perry	.000	7.697
76	Pike	226.683	220.545
77	Porter	37.780	284.589
78	Posey	37.780	82.937
79	Pulaski	226.683	273.652
80	Putnam	234.239	235.593
81	Randolph	37.780	96.022
82	Ripley	226.683	228.242
83	Rush	37.780	56.769
84	St. Joseph	226.683	754.691
85	Scott	37.780	325.381
86	Shelby	423.141	546.375
87	Spencer	226.683	266.725
88	Starke	.000	.000
89	Steuben	37.780	230.713
90	Sullivan	1416.768	1378.407
91	Switzerland	226.683	220.545
92	Tippecanoe	226.683	716.208
93	Tipton	.000	134.691
94	Union	.000	.000
95	Vanderburgh	661.158	3339.387
96	Vermillion	37.780	42.915
97	Vigo	1416.768	1569.283
98	Wabash	37.780	82.937
99	Warren	226.683	228.242
100	Warrick	1416.768	1378.407
101	Washington	37.780	82.937
102	Wayne	37.780	579.370

	State	P15_97	A15_97
103	Wells	37.780	430.825
104	White	37.780	69.083
105	Whitley	.000	7.697
106	Iowa	586.001	19010.000
107	Kansas	432.001	8486.000
108	Kentucky_E	114689.283	65842.000
109	Kentucky_W	76459.188	43895.000
110	Louisiana	3418.008	13916.000
111	Maine	20.000	923.000
112	Maryland	4610.011	23226.000
113	Massachusetts	586.001	4175.000
114	Michigan_E	673.002	9694.000
115	Michigan_W	673.002	9694.000
116	Minnesota	401.001	15838.000
117	Missisippi	353.001	9347.000
118	Missouri	1418.003	37875.000
119	Montana	54569.134	12696.000
120	Nebraska	218.001	11221.000
121	Nevada	.000	6462.000
122	New Hampshire	.000	1369.000
123	New Jersey	586.001	1929.000
124	New Mexico	31085.077	14454.000
125	New York	1064.003	23542.000
126	North Carolina	1107.003	22668.000
127	North Dakota	34075.084	34785.000
128	Ohio_N	13192.033	26386.000
129	Ohio_M	13192.033	26386.000
130	Ohio_S	13192.033	26386.000
131	Oklahoma	1007.002	18197.000
132	Oregon	.000	4055.000
133	Pennsylvania	103683.255	98261.000
134	Rhode Island	.000	.000
135	South Carolina	.000	3362.000
136	South Dakota	530.001	2176.000
137	Tennessee	1221.003	22900.000
138	Texas	49543.122	81949.000
139	Utah	21171.052	10433.000
140	Vermont	.000	.000
141	Virginia	57611.142	63502.000
142	Washington	975.002	6101.000
143	West Virginia	187835.463	56029.000
144	Wisconsin	586.001	35973.000
145	Wyoming	239363.590	29602.000

	State	P17_97	A17_97
1	Alabama	12748.143	14015.000
2	Arizona	5654.540	6238.000
3	Arkansas	6808.610	6632.000
4	California	122646.626	124851.000
5	Colorado	5369.547	8378.000
6	Connecticut	3201.386	3593.000
7	Delaware	10794.482	6615.000
8	DC	.000	.000
9	Florida	35280.706	63957.000
10	Georgia	38412.606	44337.000
11	Idaho	1476.323	1942.000
12	Illinois_N	34676.481	28380.000
13	Illinois_S	14860.917	12163.000
14	Adams	60.287	141.927
15	Allen	373.780	1158.208
16	Bartholomew	.000	164.681
17	Benton	.000	22.405
18	Blackford	.000	33.023
19	Boone	.000	103.500
20	Brown	.000	34.853
21	Carroll	.000	47.020
22	Cass	.000	94.757
23	Clark	608.900	865.986
24	Clay	.000	61.865
25	Clinton	.000	79.284
26	Crawford	.000	24.556
27	Daviess	60.287	133.287
28	Dearborn	60.287	169.373
29	Decatur	.000	57.596
30	DeKalb	.000	91.704
31	Delaware	.000	280.023
32	Dubois	.000	92.006
33	Elkhart	60.287	480.637
34	Fayette	.000	60.680
35	Floyd	.000	165.497
36	Fountain	.000	42.216
37	Franklin	361.723	433.476
38	Fulton	.000	47.531
39	Gibson	.000	75.225
40	Grant	.000	173.181
41	Greene	.000	77.871
42	Hamilton	60.287	451.917
43	Hancock	.000	126.053
44	Harrison	361.723	461.032
45	Hendricks	.000	227.395
46	Henry	.000	114.315
47	Howard	.000	197.690
48	Huntington	60.287	152.474
49	Jackson	.000	95.751
50	Jasper	.000	68.286
51	Jay	60.287	114.826

	State	P17_97	A17_97
52	Jefferson	.000	73.425
53	Jennings	361.723	445.849
54	Johnson	.000	257.090
55	Knox	60.287	156.852
56	Kosciusko	60.287	234.350
57	LaGrange	.000	79.923
58	Lake	13015.987	14907.324
59	La Porte	60.287	321.449
60	Lawrence	361.723	490.099
61	Madison	.000	312.157
62	Marion	717.417	2760.531
63	Marshall	361.723	486.996
64	Martin	.000	24.552
65	Miami	.000	82.293
66	Monroe	361.723	662.291
67	Montgomery	.000	87.488
68	Morgan	.000	152.015
69	Newton	.000	34.202
70	Noble	.000	104.923
71	Ohio	.000	13.020
72	Orange	.000	44.880
73	Owen	.000	49.724
74	Parke	.000	39.915
75	Perry	.000	44.845
76	Pike	.000	30.056
77	Porter	.000	338.670
78	Posey	2260.767	2455.188
79	Pulaski	.000	32.041
80	Putnam	.000	82.229
81	Randolph	60.287	128.176
82	Ripley	60.287	124.904
83	Rush	.000	43.039
84	St. Joseph	60.287	682.074
85	Scott	60.287	116.410
86	Shelby	.000	100.667
87	Spencer	.000	47.575
88	Starke	.000	55.857
89	Steuben	60.287	139.722
90	Sullivan	.000	50.404
91	Switzerland	.000	20.650
92	Tippecanoe	60.287	406.340
93	Tipton	.000	38.877
94	Union	.000	17.048
95	Vanderburgh	.000	402.157
96	Vermillion	.000	39.362
97	Vigo	.000	249.643
98	Wabash	60.287	145.611
99	Warren	.000	19.469
100	Warrick	.000	119.759
101	Washington	.000	62.854
102	Wayne	.000	167.685

	State	P17_97	A17_97
103	Wells	.000	64.436
104	White	.000	58.985
105	Whitley	.000	70.810
106	Iowa	7762.279	9033.000
107	Kansas	7061.378	4564.000
108	Kentucky_E	9024.102	11507.000
109	Kentucky_W	6016.068	7672.000
110	Louisiana	157986.747	91822.000
111	Maine	1015.098	3780.000
112	Maryland	7081.519	8596.000
113	Massachusetts	6971.751	8106.000
114	Michigan_E	18967.634	20701.000
115	Michigan_W	18967.634	20701.000
116	Minnesota	13348.340	15355.000
117	Missisippi	15846.811	17902.000
118	Missouri	5748.195	6735.000
119	Montana	5338.329	5105.000
120	Nebraska	2953.654	3470.000
121	Nevada	1854.971	2299.000
122	New Hampshire	1985.887	3512.000
123	New Jersey	23275.759	24141.000
124	New Mexico	3489.400	3339.000
125	New York	14450.044	14180.000
126	North Carolina	12913.298	13421.000
127	North Dakota	3878.118	2098.000
128	Ohio_N	11996.890	12414.000
129	Ohio_M	11996.890	12414.000
130	Ohio_S	11995.883	12414.000
131	Oklahoma	11700.820	13706.000
132	Oregon	6656.547	6329.000
133	Pennsylvania	30598.968	31163.000
134	Rhode Island	1910.358	1569.000
135	South Carolina	6339.329	8466.000
136	South Dakota	340.380	448.000
137	Tennessee	12641.397	14799.000
138	Texas	137066.459	125473.000
139	Utah	7235.596	7060.000
140	Vermont	1470.281	3594.000
141	Virginia	14148.939	11000.000
142	Washington	19868.937	19034.000
143	West Virginia	5094.625	5957.000
144	Wisconsin	5390.695	13982.000
145	Wyoming	935.542	1067.000

	State	P18_97	A18_97
1	Alabama	3633.378	5100.000
2	Arizona	2425.948	4305.000
3	Arkansas	4150.416	4440.000
4	California	39491.443	36234.000
5	Colorado	2718.230	3847.000
6	Connecticut	2498.514	3986.000
7	Delaware	3988.149	12028.000
8	DC	.000	.000
9	Florida	11922.116	15959.000
10	Georgia	12921.925	10853.000
11	Idaho	642.014	757.000
12	Illinois_N	18379.551	16775.000
13	Illinois_S	7876.519	7190.000
14	Adams	42.595	62.102
15	Allen	264.090	291.071
16	Bartholomew	.000	23.159
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	1.323
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	430.210	483.179
24	Clay	.000	7.940
25	Clinton	.000	23.159
26	Crawford	.000	.000
27	Daviess	42.595	46.883
28	Dearborn	42.595	40.266
29	Decatur	.000	.000
30	DeKalb	.000	29.908
31	Delaware	.000	11.249
32	Dubois	.000	7.940
33	Elkhart	42.595	270.531
34	Fayette	.000	.000
35	Floyd	.000	13.498
36	Fountain	.000	1.323
37	Franklin	255.571	233.657
38	Fulton	.000	1.323
39	Gibson	.000	.000
40	Grant	.000	12.572
41	Greene	.000	.000
42	Hamilton	42.595	46.883
43	Hancock	.000	.000
44	Harrison	255.571	240.141
45	Hendricks	.000	1.323
46	Henry	.000	.000
47	Howard	.000	.000
48	Huntington	42.595	46.883
49	Jackson	.000	23.159
50	Jasper	.000	.000
51	Jay	42.595	38.943

	State	P18_97	A18_97
52	Jefferson	.000	7.940
53	Jennings	255.571	234.980
54	Johnson	.000	7.940
55	Knox	42.595	38.943
56	Kosciusko	42.595	82.878
57	LaGrange	.000	1.323
58	Lake	9196.282	8605.201
59	La Porte	42.595	82.746
60	Lawrence	255.571	233.657
61	Madison	.000	49.626
62	Marion	506.882	1264.581
63	Marshall	255.571	250.861
64	Martin	.000	.000
65	Miami	.000	7.940
66	Monroe	255.571	255.228
67	Montgomery	.000	23.159
68	Morgan	.000	49.626
69	Newton	.000	1.323
70	Noble	.000	28.585
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	.000	61.271
78	Posey	1597.316	1691.944
79	Pulaski	.000	.000
80	Putnam	.000	.000
81	Randolph	42.595	38.943
82	Ripley	42.595	46.883
83	Rush	.000	.000
84	St. Joseph	42.595	152.752
85	Scott	42.595	62.102
86	Shelby	.000	25.408
87	Spencer	.000	1.323
88	Starke	.000	7.940
89	Steuben	42.595	38.943
90	Sullivan	.000	1.323
91	Switzerland	.000	.000
92	Tippecanoe	42.595	256.238
93	Tipton	.000	1.323
94	Union	.000	5.690
95	Vanderburgh	.000	310.195
96	Vermillion	.000	231.588
97	Vigo	.000	136.306
98	Wabash	42.595	88.569
99	Warren	.000	.000
100	Warrick	.000	10.587
101	Washington	.000	.000
102	Wayne	.000	18.395

	State	P18_97	A18_97
103	Wells	.000	.000
104	White	.000	.000
105	Whitley	.000	1.323
106	Iowa	2910.734	3011.000
107	Kansas	1678.107	1766.000
108	Kentucky_E	5914.192	5078.000
109	Kentucky_W	3942.795	3386.000
110	Louisiana	55534.747	37879.000
111	Maine	3530.575	3667.000
112	Maryland	5165.343	3183.000
113	Massachusetts	5003.076	4360.000
114	Michigan_E	5109.910	5124.000
115	Michigan_W	5109.910	5124.000
116	Minnesota	7459.260	7626.000
117	Missisippi	5472.744	11719.000
118	Missouri	3980.086	6966.000
119	Montana	3299.772	3100.000
120	Nebraska	2485.412	2168.000
121	Nevada	1030.045	1558.000
122	New Hampshire	1554.138	1553.000
123	New Jersey	25677.551	20078.000
124	New Mexico	2691.018	2168.000
125	New York	8076.077	11194.000
126	North Carolina	9724.956	9112.000
127	North Dakota	2884.529	2254.000
128	Ohio_N	4605.974	4766.000
129	Ohio_M	4605.974	4766.000
130	Ohio_S	4605.974	4765.000
131	Oklahoma	3626.323	3962.000
132	Oregon	2612.404	4100.000
133	Pennsylvania	21992.772	25992.000
134	Rhode Island	1183.242	802.000
135	South Carolina	2308.027	2570.000
136	South Dakota	47.370	383.000
137	Tennessee	4656.368	7218.000
138	Texas	96829.273	93369.000
139	Utah	3208.056	2999.000
140	Vermont	366.865	739.000
141	Virginia	7013.780	7442.000
142	Washington	13227.310	10516.000
143	West Virginia	971.588	2813.000
144	Wisconsin	9420.578	8198.000
145	Wyoming	2639.616	1735.000

	State	P19_97	A19_97
1	Alabama	4671.000	2818.438
2	Arizona	1340.000	1981.259
3	Arkansas	3722.000	3805.546
4	California	47339.000	49871.568
5	Colorado	2912.000	3481.541
6	Connecticut	3485.000	4589.396
7	Delaware	3599.000	1091.755
8	DC	.000	.000
9	Florida	3090.000	6887.615
10	Georgia	3624.000	4121.501
11	Idaho	743.000	2503.490
12	Illinois_N	12233.000	9108.356
13	Illinois_S	5243.000	3904.156
14	Adams	104.402	119.629
15	Allen	468.067	478.360
16	Bartholomew	44.175	64.907
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	2.524	3.709
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	779.690	804.526
24	Clay	15.146	22.254
25	Clinton	44.175	64.907
26	Crawford	.000	.000
27	Daviess	75.373	76.975
28	Dearborn	62.751	58.430
29	Decatur	.000	.000
30	DeKalb	57.048	83.823
31	Delaware	21.456	31.526
32	Dubois	15.146	22.254
33	Elkhart	501.974	703.793
34	Fayette	.000	.000
35	Floyd	25.748	37.832
36	Fountain	2.524	3.709
37	Franklin	361.362	328.329
38	Fulton	2.524	3.709
39	Gibson	.000	.000
40	Grant	23.981	35.235
41	Greene	.000	.000
42	Hamilton	75.373	76.975
43	Hancock	.000	.000
44	Harrison	373.730	346.503
45	Hendricks	2.524	3.709
46	Henry	.000	.000
47	Howard	.000	.000
48	Huntington	75.373	76.975
49	Jackson	44.175	64.907
50	Jasper	.000	.000
51	Jay	60.227	54.721

	State	P19_97	A19_97
52	Jefferson	15.146	22.254
53	Jennings	363.886	332.038
54	Johnson	15.146	22.254
55	Knox	60.227	54.721
56	Kosciusko	144.033	177.860
57	LaGrange	2.524	3.709
58	Lake	13379.612	12367.736
59	La Porte	143.780	177.489
60	Lawrence	361.362	328.329
61	Madison	94.660	139.087
62	Marion	2244.893	2896.601
63	Marshall	394.177	376.545
64	Martin	.000	.000
65	Miami	15.146	22.254
66	Monroe	402.507	388.785
67	Montgomery	44.175	64.907
68	Morgan	94.660	139.087
69	Newton	2.524	3.709
70	Noble	54.524	80.114
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	116.874	171.726
78	Posey	2700.256	2701.125
79	Pulaski	.000	.000
80	Putnam	.000	.000
81	Randolph	60.227	54.721
82	Ripley	75.373	76.975
83	Rush	.000	.000
84	St. Joseph	277.314	373.694
85	Scott	104.402	119.629
86	Shelby	48.466	71.212
87	Spencer	2.524	3.709
88	Starke	15.146	22.254
89	Steuben	60.227	54.721
90	Sullivan	2.524	3.709
91	Switzerland	.000	.000
92	Tippecanoe	474.712	663.736
93	Tipton	2.524	3.709
94	Union	10.854	15.949
95	Vanderburgh	591.689	869.385
96	Vermillion	441.747	649.071
97	Vigo	260.000	382.025
98	Wabash	154.887	193.808
99	Warren	.000	.000
100	Warrick	20.194	29.672
101	Washington	.000	.000
102	Wayne	35.087	51.555

	State	P19_97	A19_97
103	Wells	.000	.000
104	White	.000	.000
105	Whitley	2.524	3.709
106	Iowa	2996.000	5859.253
107	Kansas	8549.000	3758.253
108	Kentucky_E	1643.000	2599.081
109	Kentucky_W	1096.000	1732.721
110	Louisiana	27134.000	19818.623
111	Maine	1503.000	1486.195
112	Maryland	6435.000	6090.685
113	Massachusetts	6470.000	6851.391
114	Michigan_E	5822.000	6247.656
115	Michigan_W	5822.000	6247.656
116	Minnesota	15177.000	11214.386
117	Missisippi	4445.000	5182.063
118	Missouri	9796.000	7621.154
119	Montana	4729.000	1135.023
120	Nebraska	1140.000	3073.014
121	Nevada	264.000	416.577
122	New Hampshire	377.000	389.409
123	New Jersey	25568.000	24116.213
124	New Mexico	1774.000	1707.565
125	New York	26265.000	31360.033
126	North Carolina	5578.000	6936.921
127	North Dakota	3049.000	533.300
128	Ohio_N	5928.000	6910.759
129	Ohio_M	2928.000	6910.759
130	Ohio_S	5927.000	6909.752
131	Oklahoma	4655.000	7284.068
132	Oregon	2432.000	3046.852
133	Pennsylvania	30481.000	29642.405
134	Rhode Island	453.000	335.073
135	South Carolina	1308.000	1787.057
136	South Dakota	278.000	1672.347
137	Tennessee	2551.000	7763.032
138	Texas	103426.000	99122.295
139	Utah	3776.000	5704.294
140	Vermont	204.000	88.548
141	Virginia	4090.000	3933.337
142	Washington	3412.000	4263.379
143	West Virginia	3335.000	1396.641
144	Wisconsin	4256.000	5879.377
145	Wyoming	8011.000	2740.959

	State	P20_97	A20_97
1	Alabama	7460.000	5755.478
2	Arizona	5020.000	5189.332
3	Arkansas	1254.000	3759.965
4	California	6170.000	12739.271
5	Colorado	886.000	1563.401
6	Connecticut	349.000	636.163
7	Delaware	2446.000	1087.279
8	DC	.000	.000
9	Florida	3222.000	8140.090
10	Georgia	3396.000	5790.487
11	Idaho	583.000	861.221
12	Illinois_N	5346.000	9046.323
13	Illinois_S	2291.000	3876.995
14	Adams	22.872	43.126
15	Allen	141.807	239.530
16	Bartholomew	.000	21.445
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	12.378
20	Brown	.000	.309
21	Carroll	.000	.000
22	Cass	.000	11.605
23	Clark	231.008	203.944
24	Clay	.000	.309
25	Clinton	.000	23.209
26	Crawford	.000	.000
27	Daviess	22.872	19.917
28	Dearborn	22.872	20.226
29	Decatur	.000	.000
30	DeKalb	.000	8.943
31	Delaware	.000	.309
32	Dubois	.000	23.209
33	Elkhart	22.872	88.616
34	Fayette	.000	.000
35	Floyd	.000	18.815
36	Fountain	.000	1.857
37	Franklin	137.233	119.500
38	Fulton	.000	.309
39	Gibson	.000	6.870
40	Grant	.000	54.155
41	Greene	.000	1.857
42	Hamilton	22.872	26.230
43	Hancock	.000	.309
44	Harrison	137.233	119.500
45	Hendricks	.000	5.416
46	Henry	.000	1.795
47	Howard	.000	2.073
48	Huntington	22.872	67.171
49	Jackson	.000	.000
50	Jasper	.000	5.416
51	Jay	22.872	19.917

	State	P20_97	A20_97
52	Jefferson	.000	.000
53	Jennings	137.233	119.500
54	Johnson	.000	17.794
55	Knox	22.872	22.423
56	Kosciusko	22.872	23.630
57	LaGrange	.000	1.857
58	Lake	4938.087	4305.334
59	La Porte	22.872	22.145
60	Lawrence	137.233	121.357
61	Madison	.000	.309
62	Marion	272.178	294.629
63	Marshall	137.233	119.810
64	Martin	.000	.000
65	Miami	.000	.309
66	Monroe	137.233	150.879
67	Montgomery	.000	.000
68	Morgan	.000	54.155
69	Newton	.000	5.416
70	Noble	.000	1.857
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.309
76	Pike	.000	.000
77	Porter	.000	3.435
78	Posey	857.704	746.876
79	Pulaski	.000	.000
80	Putnam	.000	5.416
81	Randolph	22.872	21.773
82	Ripley	22.872	21.773
83	Rush	.000	.309
84	St. Joseph	22.872	48.325
85	Scott	22.872	19.917
86	Shelby	.000	.000
87	Spencer	.000	.000
88	Starke	.000	.000
89	Steuben	22.872	21.773
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	22.872	56.804
93	Tipton	.000	.000
94	Union	.000	.000
95	Vanderburgh	.000	.309
96	Vermillion	.000	.000
97	Vigo	.000	54.155
98	Wabash	22.872	36.256
99	Warren	.000	.000
100	Warrick	.000	.000
101	Washington	.000	.000
102	Wayne	.000	28.749

	State	P20_97	A20_97
103	Wells	.000	.309
104	White	.000	5.416
105	Whitley	.000	5.354
106	Iowa	626.000	1894.486
107	Kansas	7344.000	1990.511
108	Kentucky_E	1936.000	2232.573
109	Kentucky_W	1291.000	1488.382
110	Louisiana	56702.000	31318.041
111	Maine	724.000	562.144
112	Maryland	1000.000	1102.283
113	Massachusetts	371.000	1266.325
114	Michigan_E	1977.000	5960.530
115	Michigan_W	1977.000	5960.530
116	Minnesota	3609.000	1651.424
117	Missisippi	2532.000	4659.196
118	Missouri	3270.000	3185.818
119	Montana	572.000	339.087
120	Nebraska	348.000	392.101
121	Nevada	681.000	778.200
122	New Hampshire	288.000	247.063
123	New Jersey	4314.000	6179.587
124	New Mexico	4775.000	3928.009
125	New York	5221.000	4761.222
126	North Carolina	3489.000	10299.644
127	North Dakota	48.000	547.140
128	Ohio_N	3278.000	3618.929
129	Ohio_M	3278.000	3618.929
130	Ohio_S	3278.000	3619.929
131	Oklahoma	4758.000	1807.464
132	Oregon	1341.000	6421.649
133	Pennsylvania	6186.000	7445.912
134	Rhode Island	195.000	213.055
135	South Carolina	3739.000	6664.711
136	South Dakota	32.000	119.031
137	Tennessee	3773.000	6575.688
138	Texas	92964.000	80805.747
139	Utah	1639.000	2035.523
140	Vermont	112.000	587.151
141	Virginia	1304.000	4139.063
142	Washington	2860.000	2897.744
143	West Virginia	5152.000	4087.049
144	Wisconsin	1387.000	3144.807
145	Wyoming	11571.000	1518.390

	State	P21_97	A21_97
1	Alabama	32.843	102.000
2	Arizona	90.568	38.000
3	Arkansas	26.872	39.000
4	California	671.794	963.000
5	Colorado	44.786	72.000
6	Connecticut	111.468	48.000
7	Delaware	18.910	9.000
8	DC	.000	.000
9	Florida	334.404	635.000
10	Georgia	273.694	298.000
11	Idaho	29.858	31.000
12	Illinois_N	302.556	311.000
13	Illinois_S	130.378	133.000
14	Adams	.780	1.247
15	Allen	2.970	8.773
16	Bartholomew	2.207	1.282
17	Benton	.177	.234
18	Blackford	.029	.097
19	Boone	.177	.439
20	Brown	.000	.069
21	Carroll	1.103	.299
22	Cass	.029	.318
23	Clark	3.292	4.236
24	Clay	.029	.432
25	Clinton	.177	1.165
26	Crawford	.000	.000
27	Daviess	.177	.585
28	Dearborn	.000	.214
29	Decatur	.029	.537
30	DeKalb	.029	1.400
31	Delaware	.415	1.266
32	Dubois	19.389	1.014
33	Elkhart	11.358	10.798
34	Fayette	.177	.274
35	Floyd	1.303	1.290
36	Fountain	.000	.231
37	Franklin	.000	.104
38	Fulton	.000	.261
39	Gibson	.000	.158
40	Grant	.515	.934
41	Greene	.029	.139
42	Hamilton	.787	2.991
43	Hancock	.177	.674
44	Harrison	1.909	.403
45	Hendricks	.029	.538
46	Henry	.515	.570
47	Howard	1.103	.354
48	Huntington	.000	.733
49	Jackson	.177	1.419
50	Jasper	.029	.221
51	Jay	.177	.325

	State	P21_97	A21_97
52	Jefferson	.029	.405
53	Jennings	.000	.160
54	Johnson	.256	.683
55	Knox	.029	.710
56	Kosciusko	.919	2.129
57	LaGrange	.886	.512
58	Lake	.744	11.128
59	La Porte	.627	3.045
60	Lawrence	.029	.125
61	Madison	1.228	2.685
62	Marion	3.837	51.041
63	Marshall	.177	1.042
64	Martin	.000	.106
65	Miami	1.103	1.061
66	Monroe	.206	2.616
67	Montgomery	.000	1.105
68	Morgan	.029	2.074
69	Newton	.177	.224
70	Noble	.177	1.539
71	Ohio	.000	.000
72	Orange	5.149	.099
73	Owen	.000	.017
74	Parke	.029	.104
75	Perry	.862	.076
76	Pike	.000	.073
77	Porter	.262	3.823
78	Posey	.000	9.490
79	Pulaski	.029	.445
80	Putnam	.000	.092
81	Randolph	.142	.102
82	Ripley	.515	.617
83	Rush	.000	.141
84	St. Joseph	.513	9.189
85	Scott	.177	.929
86	Shelby	.977	1.245
87	Spencer	2.207	.460
88	Starke	.029	.391
89	Steuben	.029	.024
90	Sullivan	.000	.304
91	Switzerland	.029	.017
92	Tippecanoe	2.207	9.637
93	Tipton	.000	.302
94	Union	.000	.328
95	Vanderburgh	1.199	14.976
96	Vermillion	.000	9.252
97	Vigo	.177	6.628
98	Wabash	.029	2.100
99	Warren	.000	.104
100	Warrick	.029	.740
101	Washington	5.149	.017
102	Wayne	2.101	1.471

	State	P21_97	A21_97
103	Wells	.048	2.633
104	White	.843	.545
105	Whitley	.129	.214
106	Iowa	78.625	182.000
107	Kansas	79.620	66.000
108	Kentucky_E	34.834	51.000
109	Kentucky_W	23.886	34.000
110	Louisiana	35.829	68.000
111	Maine	11.943	18.000
112	Maryland	86.587	317.000
113	Massachusetts	210.993	173.000
114	Michigan_E	132.368	191.000
115	Michigan_W	132.368	191.000
116	Minnesota	154.264	172.000
117	Missisippi	160.235	42.000
118	Missouri	451.844	194.000
119	Montana	13.934	14.000
120	Nebraska	89.573	57.000
121	Nevada	11.943	34.000
122	New Hampshire	49.763	16.000
123	New Jersey	916.626	921.000
124	New Mexico	10.948	8.000
125	New York	383.172	548.000
126	North Carolina	2035.288	472.000
127	North Dakota	.000	10.000
128	Ohio_N	77.630	126.000
129	Ohio_M	76.634	126.000
130	Ohio_S	76.634	125.000
131	Oklahoma	26.872	46.000
132	Oregon	52.748	128.000
133	Pennsylvania	316.490	569.000
134	Rhode Island	96.539	12.000
135	South Carolina	201.041	176.000
136	South Dakota	34.834	13.000
137	Tennessee	532.459	808.000
138	Texas	631.984	589.000
139	Utah	97.535	68.000
140	Vermont	47.772	9.000
141	Virginia	163.221	187.000
142	Washington	91.563	99.000
143	West Virginia	21.896	47.000
144	Wisconsin	44.786	55.000
145	Wyoming	3.981	4.000

	State	P22_97	A22_97
1	Alabama	2380.696	1736.000
2	Arizona	425.767	1089.000
3	Arkansas	3225.233	2094.000
4	California	11942.458	12521.000
5	Colorado	1477.191	762.000
6	Connecticut	1231.325	1671.000
7	Delaware	275.849	375.000
8	DC	.000	.000
9	Florida	57248.639	52299.000
10	Georgia	2982.366	3038.000
11	Idaho	2584.584	1899.000
12	Illinois_N	4707.421	6095.000
13	Illinois_S	2017.895	2612.000
14	Adams	15.212	28.968
15	Allen	148.488	282.759
16	Bartholomew	32.059	61.049
17	Benton	4.362	8.306
18	Blackford	6.429	12.242
19	Boone	20.149	38.369
20	Brown	6.785	12.920
21	Carroll	9.154	17.431
22	Cass	18.447	35.128
23	Clark	43.172	82.210
24	Clay	12.044	22.934
25	Clinton	15.435	29.391
26	Crawford	4.781	9.103
27	Daviess	13.530	25.765
28	Dearborn	20.555	39.143
29	Decatur	11.212	21.351
30	DeKalb	17.852	33.996
31	Delaware	54.513	103.808
32	Dubois	17.911	34.108
33	Elkhart	81.151	154.532
34	Fayette	11.813	22.495
35	Floyd	32.218	61.352
36	Fountain	8.218	15.650
37	Franklin	9.884	18.821
38	Fulton	9.253	17.620
39	Gibson	14.644	27.887
40	Grant	33.714	64.200
41	Greene	15.159	28.868
42	Hamilton	75.560	143.885
43	Hancock	24.539	46.729
44	Harrison	15.248	29.036
45	Hendricks	44.268	84.298
46	Henry	22.254	42.378
47	Howard	38.485	73.286
48	Huntington	17.266	32.878
49	Jackson	18.640	35.496
50	Jasper	13.294	25.315
51	Jay	9.936	18.922

	State	P22_97	A22_97
52	Jefferson	14.294	27.220
53	Jennings	12.292	23.408
54	Johnson	50.049	95.306
55	Knox	18.118	34.501
56	Kosciusko	33.205	63.231
57	LaGrange	15.559	29.629
58	Lake	221.205	421.231
59	La Porte	50.161	95.519
60	Lawrence	20.907	39.812
61	Madison	60.769	115.720
62	Marion	389.642	741.979
63	Marshall	20.303	38.662
64	Martin	4.780	9.102
65	Miami	16.020	30.507
66	Monroe	54.428	103.645
67	Montgomery	17.032	32.433
68	Morgan	29.594	56.354
69	Newton	6.658	12.679
70	Noble	20.426	38.896
71	Ohio	2.535	4.827
72	Orange	8.737	16.638
73	Owen	9.680	18.433
74	Parke	7.770	14.797
75	Perry	8.730	16.625
76	Pike	5.851	11.142
77	Porter	65.931	125.549
78	Posey	12.318	23.456
79	Pulaski	6.238	11.878
80	Putnam	16.008	30.483
81	Randolph	12.535	23.871
82	Ripley	11.899	22.658
83	Rush	8.379	15.955
84	St. Joseph	120.366	229.207
85	Scott	10.245	19.509
86	Shelby	19.597	37.318
87	Spencer	9.262	17.637
88	Starke	10.874	20.707
89	Steuben	14.783	28.151
90	Sullivan	9.812	18.685
91	Switzerland	4.020	7.655
92	Tippecanoe	66.687	126.989
93	Tipton	7.568	14.412
94	Union	3.319	6.320
95	Vanderburgh	78.290	149.085
96	Vermillion	7.663	14.592
97	Vigo	48.599	92.546
98	Wabash	15.930	30.334
99	Warren	3.790	7.217
100	Warrick	23.314	44.396
101	Washington	12.236	23.301
102	Wayne	32.644	62.163

	State	P22_97	A22_97
103	Wells	12.544	23.887
104	White	11.483	21.867
105	Whitley	13.785	26.250
106	Iowa	3824.905	4385.000
107	Kansas	2743.497	3598.000
108	Kentucky_E	425.767	913.000
109	Kentucky_W	283.845	608.000
110	Louisiana	12210.311	4591.000
111	Maine	461.747	626.000
112	Maryland	1895.961	935.000
113	Massachusetts	2288.746	3107.000
114	Michigan_E	684.625	1746.000
115	Michigan_W	684.625	1746.000
116	Minnesota	2589.581	2832.000
117	Missisippi	2174.809	2104.000
118	Missouri	2491.635	3716.000
119	Montana	694.619	1083.000
120	Nebraska	3529.067	4192.000
121	Nevada	94.948	316.000
122	New Hampshire	.000	594.000
123	New Jersey	3021.345	570.000
124	New Mexico	3663.993	315.000
125	New York	347.809	1823.000
126	North Carolina	5316.088	5147.000
127	North Dakota	377.793	736.000
128	Ohio_N	1382.243	1876.000
129	Ohio_M	1382.243	1876.000
130	Ohio_S	1381.243	1876.000
131	Oklahoma	4954.286	1549.000
132	Oregon	956.476	1442.000
133	Pennsylvania	4495.537	6102.000
134	Rhode Island	376.794	10.000
135	South Carolina	1286.295	2284.000
136	South Dakota	273.850	1074.000
137	Tennessee	1333.270	1406.000
138	Texas	5092.210	9862.000
139	Utah	1486.186	810.000
140	Vermont	219.880	298.000
141	Virginia	2938.390	2932.000
142	Washington	4116.745	3909.000
143	West Virginia	668.634	825.000
144	Wisconsin	2864.431	3411.000
145	Wyoming	641.648	265.000

	State	P23_97	A23_97
1	Alabama	1268.347	1479.000
2	Arizona	759.412	1228.000
3	Arkansas	553.842	1016.000
4	California	6991.378	9734.000
5	Colorado	330.309	712.000
6	Connecticut	701.533	438.000
7	Delaware	584.777	283.000
8	DC	.000	.000
9	Florida	2566.632	3318.000
10	Georgia	7369.586	5606.000
11	Idaho	100.789	234.000
12	Illinois_N	5914.630	3646.000
13	Illinois_S	2534.699	1563.000
14	Adams	7.963	29.404
15	Allen	49.387	162.160
16	Bartholomew	17.738	24.690
17	Benton	1.096	2.321
18	Blackford	9.700	10.193
19	Boone	4.565	4.411
20	Brown	1.012	1.406
21	Carroll	6.487	1.897
22	Cass	10.676	22.153
23	Clark	23.707	40.457
24	Clay	2.318	6.630
25	Clinton	5.741	7.333
26	Crawford	.000	.990
27	Daviess	3.008	6.111
28	Dearborn	3.459	7.567
29	Decatur	42.808	11.184
30	DeKalb	50.902	53.746
31	Delaware	29.112	17.669
32	Dubois	2.948	28.233
33	Elkhart	113.236	189.866
34	Fayette	5.631	2.447
35	Floyd	10.531	41.033
36	Fountain	1.012	1.703
37	Franklin	.150	17.525
38	Fulton	12.859	5.225
39	Gibson	1.982	11.895
40	Grant	3.652	23.328
41	Greene	1.396	3.750
42	Hamilton	18.384	55.163
43	Hancock	6.892	5.510
44	Harrison	1.655	18.637
45	Hendricks	3.129	11.198
46	Henry	5.255	12.399
47	Howard	3.138	18.796
48	Huntington	15.696	13.614
49	Jackson	12.318	15.246
50	Jasper	10.135	4.172
51	Jay	14.219	8.084

	State	P23_97	A23_97
52	Jefferson	2.753	7.706
53	Jennings	9.691	53.099
54	Johnson	16.852	29.079
55	Knox	1.757	5.880
56	Kosciusko	25.246	37.340
57	LaGrange	3.309	21.555
58	Lake	54.532	470.870
59	La Porte	36.436	31.630
60	Lawrence	8.634	21.694
61	Madison	19.958	21.653
62	Marion	218.766	165.261
63	Marshall	16.833	75.086
64	Martin	.150	.990
65	Miami	4.630	12.789
66	Monroe	7.620	32.747
67	Montgomery	11.582	21.251
68	Morgan	9.027	8.891
69	Newton	1.012	12.013
70	Noble	23.403	61.037
71	Ohio	.150	.525
72	Orange	.901	5.945
73	Owen	.195	5.895
74	Parke	.150	5.745
75	Perry	.901	5.462
76	Pike	.901	1.212
77	Porter	28.397	21.594
78	Posey	20.323	82.931
79	Pulaski	2.628	1.292
80	Putnam	.150	31.081
81	Randolph	1.667	5.905
82	Ripley	3.819	4.592
83	Rush	.901	3.763
84	St. Joseph	75.566	104.049
85	Scott	3.264	39.834
86	Shelby	7.641	51.721
87	Spencer	1.012	10.780
88	Starke	.666	6.388
89	Steuben	20.360	24.084
90	Sullivan	.261	6.168
91	Switzerland	.000	4.968
92	Tippecanoe	27.367	33.656
93	Tipton	1.973	1.568
94	Union	.627	.688
95	Vanderburgh	54.888	113.110
96	Vermillion	22.049	1.588
97	Vigo	21.491	50.470
98	Wabash	19.402	9.935
99	Warren	1.862	1.022
100	Warrick	4.386	5.676
101	Washington	9.144	7.828
102	Wayne	11.092	33.772

	State	P23_97	A23_97
103	Wells	9.174	20.930
104	White	14.114	11.424
105	Whitley	10.637	13.678
106	Iowa	1228.431	1157.000
107	Kansas	1015.875	629.000
108	Kentucky_E	763.403	902.000
109	Kentucky_W	508.936	601.000
110	Louisiana	4527.531	2796.000
111	Maine	70.852	210.000
112	Maryland	1730.381	1109.000
113	Massachusetts	1093.712	1074.000
114	Michigan_E	1801.233	1921.000
115	Michigan_W	1801.233	1921.000
116	Minnesota	1314.251	1444.000
117	Missisippi	956.001	1003.000
118	Missouri	5018.504	4198.000
119	Montana	48.898	596.000
120	Nebraska	273.428	442.000
121	Nevada	105.779	492.000
122	New Hampshire	55.883	158.000
123	New Jersey	3863.919	3153.000
124	New Mexico	64.864	213.000
125	New York	2040.732	2782.000
126	North Carolina	1614.623	2906.000
127	North Dakota	56.881	164.000
128	Ohio_N	3018.686	1646.000
129	Ohio_M	3018.686	1646.000
130	Ohio_S	3018.686	1645.000
131	Oklahoma	316.338	655.000
132	Oregon	840.243	957.000
133	Pennsylvania	1843.145	4083.000
134	Rhode Island	69.854	135.000
135	South Carolina	1808.218	1824.000
136	South Dakota	50.894	110.000
137	Tennessee	1139.616	1780.000
138	Texas	8959.262	9150.000
139	Utah	413.136	539.000
140	Vermont	109.770	192.000
141	Virginia	760.410	1456.000
142	Washington	1372.130	1483.000
143	West Virginia	944.026	698.000
144	Wisconsin	1852.126	1886.000
145	Wyoming	1269.345	69.000

	State	P24_97	A24_97
1	Alabama	1584.769	1765.000
2	Arizona	453.934	884.000
3	Arkansas	1228.821	1613.000
4	California	5763.160	9196.000
5	Colorado	422.938	844.000
6	Connecticut	609.911	818.000
7	Delaware	441.936	5058.000
8	DC	.000	.000
9	Florida	2205.678	3439.000
10	Georgia	3749.453	5145.000
11	Idaho	148.978	260.000
12	Illinois_N	6220.093	4697.000
13	Illinois_S	2665.611	2013.000
14	Adams	6.903	23.179
15	Allen	42.797	194.461
16	Bartholomew	.000	102.717
17	Benton	.000	1.623
18	Blackford	.000	1.623
19	Boone	.000	12.036
20	Brown	.000	.411
21	Carroll	.000	1.623
22	Cass	.000	5.895
23	Clark	69.718	83.586
24	Clay	.000	5.034
25	Clinton	.000	12.976
26	Crawford	.000	.000
27	Daviess	6.903	10.153
28	Dearborn	6.903	6.639
29	Decatur	.000	12.117
30	DeKalb	.000	26.565
31	Delaware	.000	32.241
32	Dubois	.000	6.277
33	Elkhart	6.903	149.827
34	Fayette	.000	18.473
35	Floyd	.000	20.986
36	Fountain	.000	.411
37	Franklin	41.417	19.354
38	Fulton	.000	9.985
39	Gibson	.000	4.679
40	Grant	.000	24.884
41	Greene	.000	.621
42	Hamilton	6.903	23.808
43	Hancock	.000	6.302
44	Harrison	41.417	21.366
45	Hendricks	.000	7.361
46	Henry	.000	13.869
47	Howard	.000	9.467
48	Huntington	6.903	17.563
49	Jackson	.000	26.336
50	Jasper	.000	.270
51	Jay	6.903	8.446

	State	P24_97	A24_97
52	Jefferson	.000	23.181
53	Jennings	41.417	49.330
54	Johnson	.000	21.613
55	Knox	6.903	5.308
56	Kosciusko	6.903	44.411
57	LaGrange	.000	15.854
58	Lake	1490.306	739.214
59	La Porte	6.903	68.939
60	Lawrence	41.417	28.982
61	Madison	.000	27.490
62	Marion	82.143	537.704
63	Marshall	41.417	30.962
64	Martin	.000	.270
65	Miami	.000	8.576
66	Monroe	41.417	75.485
67	Montgomery	.000	11.948
68	Morgan	.000	23.542
69	Newton	.000	2.656
70	Noble	.000	32.182
71	Ohio	.000	.000
72	Orange	.000	.270
73	Owen	.000	3.997
74	Parke	.000	1.623
75	Perry	.000	8.460
76	Pike	.000	.000
77	Porter	.000	33.215
78	Posey	258.853	188.043
79	Pulaski	.000	12.983
80	Putnam	.000	4.733
81	Randolph	6.903	17.615
82	Ripley	6.903	5.419
83	Rush	.000	14.659
84	St. Joseph	6.903	91.150
85	Scott	6.903	22.635
86	Shelby	.000	18.515
87	Spencer	.000	5.144
88	Starke	.000	12.607
89	Steuben	6.903	20.692
90	Sullivan	.000	.411
91	Switzerland	.000	.000
92	Tippecanoe	6.903	146.824
93	Tipton	.000	5.144
94	Union	.000	2.037
95	Vanderburgh	.000	146.962
96	Vermillion	.000	71.875
97	Vigo	.000	54.853
98	Wabash	6.903	31.988
99	Warren	.000	4.733
100	Warrick	.000	5.530
101	Washington	.000	20.285
102	Wayne	.000	15.581

	State	P24_97	A24_97
103	Wells	.000	8.654
104	White	.000	8.708
105	Whitley	.000	3.846
106	Iowa	1827.734	1334.000
107	Kansas	1256.817	1115.000
108	Kentucky_E	984.856	1575.000
109	Kentucky_W	655.904	1050.000
110	Louisiana	7582.895	1612.000
111	Maine	173.975	2587.000
112	Maryland	535.922	1368.000
113	Massachusetts	2035.703	5564.000
114	Michigan_E	1530.777	2784.000
115	Michigan_W	1530.777	2784.000
116	Minnesota	1226.821	1971.000
117	Missisippi	1716.750	1104.000
118	Missouri	1728.748	2421.000
119	Montana	33.995	194.000
120	Nebraska	350.949	601.000
121	Nevada	210.969	373.000
122	New Hampshire	14245.923	3839.000
123	New Jersey	5256.234	4081.000
124	New Mexico	101.985	196.000
125	New York	2991.564	4500.000
126	North Carolina	4652.322	4766.000
127	North Dakota	50.993	265.000
128	Ohio_N	2526.632	2270.000
129	Ohio_M	2526.632	2270.000
130	Ohio_S	2526.632	2270.000
131	Oklahoma	1118.837	1010.000
132	Oregon	764.888	1092.000
133	Pennsylvania	5585.186	4577.000
134	Rhode Island	193.972	366.000
135	South Carolina	2661.612	2680.000
136	South Dakota	97.986	153.000
137	Tennessee	2885.579	2944.000
138	Texas	23914.514	16010.000
139	Utah	308.955	503.000
140	Vermont	16.998	1416.000
141	Virginia	1789.739	2238.000
142	Washington	1053.846	1625.000
143	West Virginia	1315.808	1015.000
144	Wisconsin	2313.663	2305.000
145	Wyoming	237.965	107.000

	State	P25_97	A25_97
1	Alabama	40817.000	37663.543
2	Arizona	4221.000	4500.583
3	Arkansas	20514.000	8132.578
4	California	9419.000	9619.200
5	Colorado	31.000	58.463
6	Connecticut	752.000	801.774
7	Delaware	.000	596.111
8	DC	.000	.000
9	Florida	8050.000	20158.144
10	Georgia	14157.000	41215.151
11	Idaho	4478.000	4775.149
12	Illinois_N	3181.000	128.409
13	Illinois_S	1363.000	55.331
14	Adams	386.828	54.295
15	Allen	126.256	17.721
16	Bartholomew	40.295	5.656
17	Benton	117.526	16.496
18	Blackford	52.383	7.352
19	Boone	.000	.000
20	Brown	18.133	2.545
21	Carroll	.000	.000
22	Cass	112.825	15.836
23	Clark	447.941	62.873
24	Clay	40.295	5.656
25	Clinton	22.162	3.111
26	Crawford	40.295	5.656
27	Daviess	151.105	21.209
28	Dearborn	6.716	.943
29	Decatur	17.461	2.451
30	DeKalb	448.613	62.968
31	Delaware	40.295	5.656
32	Dubois	1152.425	161.755
33	Elkhart	4284.656	601.396
34	Fayette	.000	.000
35	Floyd	397.573	55.804
36	Fountain	6.716	.943
37	Franklin	26.191	3.676
38	Fulton	176.625	24.791
39	Gibson	.000	.000
40	Grant	40.295	5.656
41	Greene	40.295	5.656
42	Hamilton	84.619	11.877
43	Hancock	18.804	2.639
44	Harrison	114.168	16.025
45	Hendricks	40.295	5.656
46	Henry	40.295	5.656
47	Howard	40.295	5.656
48	Huntington	57.084	8.012
49	Jackson	197.443	27.713
50	Jasper	46.339	6.504
51	Jay	40.295	5.656

	State	P25_97	A25_97
52	Jefferson	49.025	6.881
53	Jennings	47.010	6.598
54	Johnson	685.679	96.242
55	Knox	51.040	7.164
56	Kosciusko	209.532	29.410
57	LaGrange	1262.563	177.214
58	Lake	159.164	22.340
59	La Porte	140.359	19.701
60	Lawrence	77.903	10.934
61	Madison	120.212	16.873
62	Marion	477.491	67.021
63	Marshall	432.495	60.705
64	Martin	6.716	.943
65	Miami	90.663	12.725
66	Monroe	40.295	5.656
67	Montgomery	28.206	3.959
68	Morgan	122.898	17.250
69	Newton	.000	.000
70	Noble	40.295	5.656
71	Ohio	.000	.000
72	Orange	306.910	43.078
73	Owen	83.275	11.689
74	Parke	117.526	16.496
75	Perry	40.295	5.656
76	Pike	40.295	5.656
77	Porter	72.530	10.180
78	Posey	6.716	.943
79	Pulaski	6.716	.943
80	Putnam	40.295	5.656
81	Randolph	253.184	35.537
82	Ripley	81.932	11.500
83	Rush	40.295	5.656
84	St. Joseph	342.504	48.074
85	Scott	40.295	5.656
86	Shelby	.000	.000
87	Spencer	101.408	14.234
88	Starke	216.919	30.447
89	Steuben	32.907	4.619
90	Sullivan	59.770	8.389
91	Switzerland	.000	.000
92	Tippecanoe	34.250	4.807
93	Tipton	40.295	5.656
94	Union	6.716	.943
95	Vanderburgh	162.521	22.812
96	Vermillion	.000	.000
97	Vigo	78.574	11.029
98	Wabash	117.526	16.496
99	Warren	40.295	5.656
100	Warrick	84.619	11.877
101	Washington	151.776	21.303
102	Wayne	40.295	5.656

	State	P25_97	A25_97
103	Wells	40.295	5.656
104	White	17.461	2.451
105	Whitley	117.526	16.496
106	Iowa	4319.000	87.694
107	Kansas	1540.000	81.430
108	Kentucky_E	3582.000	2348.947
109	Kentucky_W	2388.000	939.579
110	Louisiana	19879.000	21509.049
111	Maine	4014.000	4280.304
112	Maryland	1989.000	2121.360
113	Massachusetts	1443.000	38.627
114	Michigan_E	1415.000	1306.015
115	Michigan_W	1415.000	1306.015
116	Minnesota	7508.000	8005.212
117	Missisippi	13181.000	19933.689
118	Missouri	5146.000	276.654
119	Montana	2701.000	2880.331
120	Nebraska	1271.000	135.717
121	Nevada	21.000	42.803
122	New Hampshire	1867.000	1990.863
123	New Jersey	1287.000	129.453
124	New Mexico	772.000	822.654
125	New York	1785.000	5367.084
126	North Carolina	26405.000	26076.447
127	North Dakota	496.000	8.352
128	Ohio_N	317.000	668.145
129	Ohio_M	317.000	668.145
130	Ohio_S	317.000	668.145
131	Oklahoma	1570.000	1674.538
132	Oregon	22395.000	24572.077
133	Pennsylvania	1474.000	1340.466
134	Rhode Island	256.000	272.478
135	South Carolina	8392.000	10503.448
136	South Dakota	748.000	797.598
137	Tennessee	9529.000	2705.987
138	Texas	14452.000	18895.976
139	Utah	1113.000	29.231
140	Vermont	1668.000	1778.936
141	Virginia	17584.000	17630.676
142	Washington	59210.000	59811.506
143	West Virginia	5627.000	.000
144	Wisconsin	2283.000	3280.174
145	Wyoming	526.000	17.748

	State	P26_97	A26_97
1	Alabama	12440.235	13803.000
2	Arizona	1525.661	3628.000
3	Arkansas	14199.844	10141.000
4	California	19551.655	23350.000
5	Colorado	2171.517	3713.000
6	Connecticut	414.908	987.000
7	Delaware	48.989	458.000
8	DC	.000	.000
9	Florida	7275.383	9625.000
10	Georgia	23124.861	22270.000
11	Idaho	3504.221	1628.000
12	Illinois_N	7988.225	6338.000
13	Illinois_S	3424.239	2716.000
14	Adams	78.966	114.712
15	Allen	25.774	46.574
16	Bartholomew	8.226	11.787
17	Benton	23.991	34.379
18	Blackford	10.693	15.323
19	Boone	.000	.000
20	Brown	3.702	5.304
21	Carroll	.000	.000
22	Cass	23.032	33.004
23	Clark	91.442	146.739
24	Clay	8.226	11.787
25	Clinton	4.524	6.483
26	Crawford	8.226	11.787
27	Daviess	30.846	45.757
28	Dearborn	1.371	3.519
29	Decatur	3.564	5.108
30	DeKalb	91.579	131.231
31	Delaware	8.226	11.787
32	Dubois	235.253	337.114
33	Elkhart	874.659	1254.927
34	Fayette	.000	.000
35	Floyd	81.160	116.300
36	Fountain	1.371	1.965
37	Franklin	5.347	16.991
38	Fulton	36.056	51.667
39	Gibson	.000	.000
40	Grant	8.226	11.787
41	Greene	8.226	11.787
42	Hamilton	17.274	26.308
43	Hancock	3.839	5.501
44	Harrison	23.306	42.727
45	Hendricks	8.226	11.787
46	Henry	8.226	11.787
47	Howard	8.226	11.787
48	Huntington	11.653	18.253
49	Jackson	40.306	57.757
50	Jasper	9.459	13.555
51	Jay	8.226	13.342

	State	P26_97	A26_97
52	Jefferson	10.008	14.341
53	Jennings	9.597	23.081
54	Johnson	139.973	200.579
55	Knox	10.419	16.485
56	Kosciusko	42.773	62.848
57	LaGrange	257.736	369.332
58	Lake	32.491	382.268
59	La Porte	28.653	42.614
60	Lawrence	15.903	32.118
61	Madison	24.540	35.165
62	Marion	97.474	158.182
63	Marshall	88.288	135.845
64	Martin	1.371	1.965
65	Miami	18.508	26.521
66	Monroe	8.226	21.117
67	Montgomery	5.758	8.251
68	Morgan	25.088	35.951
69	Newton	.000	.000
70	Noble	8.226	11.787
71	Ohio	.000	.000
72	Orange	62.652	89.779
73	Owen	17.000	24.360
74	Parke	23.991	34.379
75	Perry	8.226	11.787
76	Pike	8.226	11.787
77	Porter	14.806	21.217
78	Posey	1.371	60.274
79	Pulaski	1.371	1.965
80	Putnam	8.226	11.787
81	Randolph	51.684	75.618
82	Ripley	16.725	25.522
83	Rush	8.226	11.787
84	St. Joseph	69.918	101.746
85	Scott	8.226	13.342
86	Shelby	.000	.000
87	Spencer	20.701	29.664
88	Starke	44.281	63.454
89	Steuben	6.718	11.181
90	Sullivan	12.201	17.484
91	Switzerland	.000	.000
92	Tippecanoe	6.992	11.574
93	Tipton	8.226	11.787
94	Union	1.371	1.965
95	Vanderburgh	33.177	47.542
96	Vermillion	.000	.000
97	Vigo	16.040	22.985
98	Wabash	23.991	35.934
99	Warren	8.226	11.787
100	Warrick	17.274	24.753
101	Washington	30.983	44.398
102	Wayne	8.226	11.787

	State	P26_97	A26_97
103	Wells	8.226	11.787
104	White	3.564	5.108
105	Whitley	23.991	34.379
106	Iowa	1112.753	1862.000
107	Kansas	1183.737	1709.000
108	Kentucky_E	2541.435	2402.000
109	Kentucky_W	1694.623	1601.000
110	Louisiana	12151.300	13693.000
111	Maine	6889.469	5909.000
112	Maryland	2496.445	4144.000
113	Massachusetts	11805.376	2771.000
114	Michigan_E	2568.429	2949.000
115	Michigan_W	2568.429	2949.000
116	Minnesota	5797.712	5036.000
117	Missisippi	13844.923	8748.000
118	Missouri	2719.396	3979.000
119	Montana	3421.240	1812.000
120	Nebraska	3191.291	1120.000
121	Nevada	251.944	1480.000
122	New Hampshire	4687.958	5361.000
123	New Jersey	1602.644	3276.000
124	New Mexico	1233.726	968.000
125	New York	4165.074	5971.000
126	North Carolina	22830.926	18440.000
127	North Dakota	191.957	287.000
128	Ohio_N	2365.474	2740.000
129	Ohio_M	2365.474	2740.000
130	Ohio_S	2365.474	2740.000
131	Oklahoma	3203.288	3062.000
132	Oregon	33472.561	25339.000
133	Pennsylvania	7883.248	8122.000
134	Rhode Island	346.923	342.000
135	South Carolina	7578.316	8873.000
136	South Dakota	902.799	645.000
137	Tennessee	4937.903	6468.000
138	Texas	12074.317	25274.000
139	Utah	1327.705	2095.000
140	Vermont	990.780	670.000
141	Virginia	12906.132	14325.000
142	Washington	15663.519	14257.000
143	West Virginia	3868.140	1910.000
144	Wisconsin	7811.264	8410.000
145	Wyoming	587.869	225.000

	State	P27_97	A27_97
1	Alabama	8943.887	3577.000
2	Arizona	598.658	806.000
3	Arkansas	3722.872	1791.000
4	California	6251.426	13523.000
5	Colorado	207.881	1040.000
6	Connecticut	885.494	1264.000
7	Delaware	4.997	262.000
8	DC	.000	.000
9	Florida	3846.801	4906.000
10	Georgia	9674.469	7102.000
11	Idaho	321.816	443.000
12	Illinois_N	2745.430	5858.000
13	Illinois_S	1177.327	2511.000
14	Adams	.231	2.319
15	Allen	75.749	157.710
16	Bartholomew	60.440	117.270
17	Benton	15.670	30.247
18	Blackford	38.234	73.802
19	Boone	.895	1.728
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.604
23	Clark	7.704	27.685
24	Clay	.000	.000
25	Clinton	5.372	13.996
26	Crawford	.000	.000
27	Daviess	.231	1.714
28	Dearborn	.231	45.521
29	Decatur	.000	.000
30	DeKalb	15.670	30.247
31	Delaware	40.920	79.592
32	Dubois	19.162	36.987
33	Elkhart	67.386	131.343
34	Fayette	.000	.000
35	Floyd	15.670	30.247
36	Fountain	.000	.000
37	Franklin	1.385	10.286
38	Fulton	5.372	10.975
39	Gibson	.000	.000
40	Grant	37.249	71.901
41	Greene	.000	.000
42	Hamilton	.231	1.714
43	Hancock	16.207	31.284
44	Harrison	1.385	10.286
45	Hendricks	.000	.000
46	Henry	5.372	10.370
47	Howard	.000	3.625
48	Huntington	15.900	31.961
49	Jackson	42.532	82.098
50	Jasper	.000	.000
51	Jay	5.603	15.710

	State	P27_97	A27_97
52	Jefferson	.000	.604
53	Jennings	6.757	20.656
54	Johnson	15.670	30.247
55	Knox	5.603	12.085
56	Kosciusko	1.126	3.443
57	LaGrange	.000	.000
58	Lake	86.544	463.648
59	La Porte	43.837	86.491
60	Lawrence	1.385	13.911
61	Madison	15.670	30.247
62	Marion	253.996	583.514
63	Marshall	42.842	100.884
64	Martin	.000	.000
65	Miami	33.578	64.815
66	Monroe	17.054	44.158
67	Montgomery	15.670	30.247
68	Morgan	.000	.000
69	Newton	5.372	10.370
70	Noble	15.670	30.247
71	Ohio	.000	.000
72	Orange	.000	.604
73	Owen	.000	.000
74	Parke	.000	.604
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	.000	.000
78	Posey	8.656	64.288
79	Pulaski	.895	1.728
80	Putnam	.000	.000
81	Randolph	.231	1.714
82	Ripley	15.900	32.565
83	Rush	5.372	10.370
84	St. Joseph	50.642	99.627
85	Scott	.231	5.340
86	Shelby	.895	1.728
87	Spencer	.000	.000
88	Starke	5.372	10.370
89	Steuben	5.603	12.085
90	Sullivan	.000	.000
91	Switzerland	.895	1.728
92	Tippecanoe	5.603	12.085
93	Tipton	5.372	10.370
94	Union	.000	.000
95	Vanderburgh	56.052	118.771
96	Vermillion	15.670	30.247
97	Vigo	46.829	90.395
98	Wabash	33.808	66.529
99	Warren	.000	.000
100	Warrick	.895	1.728
101	Washington	.000	.604
102	Wayne	21.311	41.740

	State	P27_97	A27_97
103	Wells	5.372	10.370
104	White	5.372	10.370
105	Whitley	15.670	30.247
106	Iowa	899.486	1813.000
107	Kansas	569.674	1824.000
108	Kentucky_E	1158.338	2130.000
109	Kentucky_W	771.559	1420.000
110	Louisiana	8981.865	3223.000
111	Maine	3616.932	851.000
112	Maryland	1319.246	1983.000
113	Massachusetts	1570.102	2667.000
114	Michigan_E	6981.009	7406.000
115	Michigan_W	6981.009	7406.000
116	Minnesota	3368.074	3480.000
117	Missisippi	4677.326	1795.000
118	Missouri	588.663	2937.000
119	Montana	684.609	114.000
120	Nebraska	143.918	635.000
121	Nevada	58.966	388.000
122	New Hampshire	777.555	459.000
123	New Jersey	4962.163	4741.000
124	New Mexico	125.928	194.000
125	New York	4755.281	5909.000
126	North Carolina	4045.687	3763.000
127	North Dakota	22.987	109.000
128	Ohio_N	1442.175	2023.000
129	Ohio_M	1442.175	2023.000
130	Ohio_S	1442.175	2023.000
131	Oklahoma	1270.274	1080.000
132	Oregon	4944.173	2585.000
133	Pennsylvania	4881.209	7679.000
134	Rhode Island	1412.193	279.000
135	South Carolina	5951.597	3485.000
136	South Dakota	471.730	216.000
137	Tennessee	4864.219	4031.000
138	Texas	5692.745	8597.000
139	Utah	123.929	736.000
140	Vermont	173.901	440.000
141	Virginia	4018.702	4508.000
142	Washington	5490.861	3723.000
143	West Virginia	107.938	233.000
144	Wisconsin	11479.437	6914.000
145	Wyoming	160.908	16.000

	State	P28_97	A28_97
1	Alabama	975.475	1232.000
2	Arizona	433.323	825.000
3	Arkansas	1842.121	1181.000
4	California	12637.250	13546.000
5	Colorado	570.109	805.000
6	Connecticut	721.872	608.000
7	Delaware	353.448	223.000
8	DC	.000	.000
9	Florida	2030.826	2506.000
10	Georgia	5067.081	3136.000
11	Idaho	462.278	343.000
12	Illinois_N	2095.725	2250.000
13	Illinois_S	897.597	964.000
14	Adams	20.517	20.851
15	Allen	117.040	113.344
16	Bartholomew	46.725	40.954
17	Benton	.000	.626
18	Blackford	1.675	2.097
19	Boone	6.055	9.424
20	Brown	.424	1.328
21	Carroll	48.854	35.552
22	Cass	54.779	42.826
23	Clark	12.401	13.258
24	Clay	.424	2.083
25	Clinton	69.147	54.965
26	Crawford	.000	.686
27	Daviess	28.363	21.820
28	Dearborn	.424	3.305
29	Decatur	10.329	8.849
30	DeKalb	5.848	8.314
31	Delaware	4.144	10.430
32	Dubois	33.617	30.063
33	Elkhart	79.408	59.509
34	Fayette	.000	1.696
35	Floyd	29.019	28.439
36	Fountain	2.541	3.304
37	Franklin	.279	1.615
38	Fulton	4.471	4.519
39	Gibson	13.674	12.955
40	Grant	35.728	37.741
41	Greene	11.845	10.463
42	Hamilton	15.587	16.681
43	Hancock	.424	3.877
44	Harrison	20.240	16.373
45	Hendricks	15.907	18.146
46	Henry	5.574	5.287
47	Howard	5.406	9.697
48	Huntington	33.028	34.000
49	Jackson	1.515	3.380
50	Jasper	8.808	9.082
51	Jay	12.395	10.113

	State	P28_97	A28_97
52	Jefferson	1.069	2.443
53	Jennings	19.132	1.765
54	Johnson	9.008	16.429
55	Knox	4.855	6.467
56	Kosciusko	30.672	24.589
57	LaGrange	6.346	6.667
58	Lake	37.063	56.570
59	La Porte	17.211	19.318
60	Lawrence	3.052	5.126
61	Madison	22.102	23.556
62	Marion	155.433	160.930
63	Marshall	15.126	11.427
64	Martin	1.675	1.860
65	Miami	2.330	3.632
66	Monroe	20.411	25.772
67	Montgomery	10.469	9.782
68	Morgan	26.059	32.161
69	Newton	2.806	3.923
70	Noble	30.732	18.556
71	Ohio	.000	.364
72	Orange	1.675	2.428
73	Owen	3.340	1.585
74	Parke	4.885	4.539
75	Perry	3.485	1.607
76	Pike	.000	.840
77	Porter	11.102	17.523
78	Posey	4.736	2.942
79	Pulaski	1.926	2.245
80	Putnam	2.806	5.266
81	Randolph	3.016	4.256
82	Ripley	1.146	2.854
83	Rush	1.380	1.870
84	St. Joseph	41.558	45.398
85	Scott	19.397	8.808
86	Shelby	4.885	6.237
87	Spencer	1.675	2.504
88	Starke	.000	1.561
89	Steuben	10.963	8.003
90	Sullivan	.000	1.409
91	Switzerland	.000	.577
92	Tippecanoe	38.251	41.053
93	Tipton	4.885	4.510
94	Union	.000	.476
95	Vanderburgh	117.069	79.933
96	Vermillion	.223	1.257
97	Vigo	32.703	39.546
98	Wabash	9.809	11.823
99	Warren	.279	.740
100	Warrick	.510	3.347
101	Washington	1.675	2.931
102	Wayne	33.096	33.193

	State	P28_97	A28_97
103	Wells	14.948	11.976
104	White	4.210	5.242
105	Whitley	2.777	4.915
106	Iowa	840.686	857.000
107	Kansas	977.472	706.000
108	Kentucky_E	534.165	718.000
109	Kentucky_W	355.444	479.000
110	Louisiana	978.471	746.000
111	Maine	466.271	267.000
112	Maryland	1050.358	946.000
113	Massachusetts	1137.223	1203.000
114	Michigan_E	709.891	875.000
115	Michigan_W	709.891	875.000
116	Minnesota	976.474	1049.000
117	Mississippi	236.630	546.000
118	Missouri	1415.787	1650.000
119	Montana	56.911	55.000
120	Nebraska	334.477	387.000
121	Nevada	57.909	168.000
122	New Hampshire	83.869	193.000
123	New Jersey	1316.942	2235.000
124	New Mexico	61.903	117.000
125	New York	3078.189	3258.000
126	North Carolina	2163.619	2289.000
127	North Dakota	44.930	143.000
128	Ohio_N	1381.840	1363.000
129	Ohio_M	1381.840	1363.000
130	Ohio_S	1381.840	1363.000
131	Oklahoma	515.195	529.000
132	Oregon	1346.895	1307.000
133	Pennsylvania	4753.571	4276.000
134	Rhode Island	52.917	115.000
135	South Carolina	1515.631	1314.000
136	South Dakota	345.460	126.000
137	Tennessee	2040.811	2043.000
138	Texas	3629.328	4167.000
139	Utah	507.207	529.000
140	Vermont	192.699	143.000
141	Virginia	1223.088	1540.000
142	Washington	2207.550	1862.000
143	West Virginia	86.864	163.000
144	Wisconsin	3523.493	2164.000
145	Wyoming	22.964	84.000

	State	P29_97	A29_97
1	Alabama	321.420	575.000
2	Arizona	464.273	775.000
3	Arkansas	1163.659	870.000
4	California	8949.162	8930.000
5	Colorado	1130.922	1353.000
6	Connecticut	653.752	1055.000
7	Delaware	310.507	157.000
8	DC	.000	.000
9	Florida	4364.961	4846.000
10	Georgia	3376.893	2151.000
11	Idaho	148.805	152.000
12	Illinois_N	2634.849	2747.000
13	Illinois_S	1129.930	1178.000
14	Adams	7.314	12.480
15	Allen	201.203	121.818
16	Bartholomew	50.705	26.301
17	Benton	16.169	3.578
18	Blackford	29.092	5.274
19	Boone	10.219	16.530
20	Brown	.379	5.566
21	Carroll	6.518	7.510
22	Cass	6.935	15.134
23	Clark	19.024	35.418
24	Clay	2.615	9.880
25	Clinton	9.322	12.662
26	Crawford	.000	3.922
27	Daviess	5.950	11.100
28	Dearborn	3.524	16.863
29	Decatur	11.710	9.199
30	DeKalb	15.904	14.646
31	Delaware	46.827	44.722
32	Dubois	28.826	14.694
33	Elkhart	84.016	66.575
34	Fayette	5.988	9.691
35	Floyd	27.614	26.431
36	Fountain	3.903	6.742
37	Franklin	2.274	8.108
38	Fulton	8.337	7.591
39	Gibson	3.449	12.014
40	Grant	35.862	27.659
41	Greene	3.032	12.437
42	Hamilton	58.436	61.989
43	Hancock	26.136	20.132
44	Harrison	3.221	12.509
45	Hendricks	10.611	36.317
46	Henry	16.220	18.257
47	Howard	7.731	31.573
48	Huntington	20.224	14.165
49	Jackson	41.067	15.292
50	Jasper	4.813	10.906
51	Jay	10.876	8.152

	State	P29_97	A29_97
52	Jefferson	2.008	11.727
53	Jennings	6.139	10.084
54	Johnson	19.125	41.060
55	Knox	19.289	14.864
56	Kosciusko	9.348	27.241
57	LaGrange	10.042	12.765
58	Lake	99.073	181.474
59	La Porte	59.560	41.152
60	Lawrence	2.729	17.152
61	Madison	27.007	49.855
62	Marion	602.649	319.659
63	Marshall	37.201	16.656
64	Martin	2.312	3.921
65	Miami	40.018	13.143
66	Monroe	49.593	44.652
67	Montgomery	15.259	13.973
68	Morgan	2.615	24.278
69	Newton	7.541	5.462
70	Noble	20.072	16.757
71	Ohio	.000	2.079
72	Orange	2.160	7.168
73	Owen	.379	7.941
74	Parke	2.274	6.375
75	Perry	1.667	7.162
76	Pike	1.592	4.800
77	Porter	30.772	54.089
78	Posey	8.110	10.105
79	Pulaski	10.333	5.117
80	Putnam	2.008	13.133
81	Randolph	2.236	10.284
82	Ripley	17.685	9.761
83	Rush	6.859	6.874
84	St. Joseph	138.295	98.747
85	Scott	.379	8.405
86	Shelby	5.975	16.078
87	Spencer	8.906	7.598
88	Starke	5.495	8.921
89	Steuben	4.320	12.128
90	Sullivan	5.495	8.050
91	Switzerland	1.011	3.298
92	Tippecanoe	27.399	54.710
93	Tipton	9.247	6.209
94	Union	2.274	2.723
95	Vanderburgh	99.831	64.228
96	Vermillion	13.971	6.286
97	Vigo	60.545	39.870
98	Wabash	26.868	13.068
99	Warren	2.274	3.109
100	Warrick	7.680	19.127
101	Washington	.379	10.038
102	Wayne	31.327	26.781

	State	P29_97	A29_97
103	Wells	61.240	10.291
104	White	15.689	9.421
105	Whitley	14.577	11.309
106	Iowa	696.410	676.000
107	Kansas	1430.517	678.000
108	Kentucky_E	760.892	445.000
109	Kentucky_W	507.923	297.000
110	Louisiana	257.930	420.000
111	Maine	276.778	519.000
112	Maryland	1071.400	2534.000
113	Massachusetts	1974.153	2260.000
114	Michigan_E	795.613	861.000
115	Michigan_W	795.613	861.000
116	Minnesota	1707.295	1199.000
117	Missisippi	449.393	419.000
118	Missouri	1364.050	1511.000
119	Montana	68.451	368.000
120	Nebraska	327.372	403.000
121	Nevada	350.189	500.000
122	New Hampshire	195.431	321.000
123	New Jersey	4460.197	3408.000
124	New Mexico	168.646	243.000
125	New York	4765.744	5580.000
126	North Carolina	1484.087	1397.000
127	North Dakota	22.817	86.000
128	Ohio_N	1239.054	1280.000
129	Ohio_M	1239.054	1280.000
130	Ohio_S	1239.054	1280.000
131	Oklahoma	566.453	553.000
132	Oregon	476.178	521.000
133	Pennsylvania	5136.766	4316.000
134	Rhode Island	345.229	330.000
135	South Carolina	1025.766	870.000
136	South Dakota	104.164	84.000
137	Tennessee	2298.549	2018.000
138	Texas	5623.856	6526.000
139	Utah	189.479	877.000
140	Vermont	115.076	129.000
141	Virginia	1993.994	1888.000
142	Washington	826.366	997.000
143	West Virginia	260.906	339.000
144	Wisconsin	3775.691	2219.000
145	Wyoming	67.458	83.000

	State	P30_97	A30_97
1	Alabama	2116.670	1395.000
2	Arizona	183.711	435.000
3	Arkansas	164.741	349.000
4	California	3604.330	4143.000
5	Colorado	153.758	435.000
6	Connecticut	102.838	195.000
7	Delaware	353.444	95.000
8	DC	.000	.000
9	Florida	785.764	1444.000
10	Georgia	7633.991	5854.000
11	Idaho	17.972	91.000
12	Illinois_N	245.614	467.000
13	Illinois_S	104.835	200.000
14	Adams	.320	1.096
15	Allen	20.119	23.953
16	Bartholomew	.558	2.067
17	Benton	.000	.221
18	Blackford	.000	.325
19	Boone	.000	1.020
20	Brown	.000	.343
21	Carroll	.000	.463
22	Cass	.558	1.378
23	Clark	6.583	8.152
24	Clay	.000	.609
25	Clinton	.000	.781
26	Crawford	.000	.242
27	Daviess	.320	1.011
28	Dearborn	.320	1.367
29	Decatur	.000	.567
30	DeKalb	.000	.903
31	Delaware	.558	3.203
32	Dubois	.558	1.351
33	Elkhart	32.567	30.101
34	Fayette	.000	.598
35	Floyd	.000	1.630
36	Fountain	.000	.416
37	Franklin	1.922	2.460
38	Fulton	.000	.468
39	Gibson	.000	.741
40	Grant	3.347	4.375
41	Greene	.558	1.212
42	Hamilton	10.364	12.114
43	Hancock	.000	1.242
44	Harrison	1.922	2.731
45	Hendricks	.558	2.685
46	Henry	3.347	3.795
47	Howard	.000	1.947
48	Huntington	.878	1.645
49	Jackson	.558	1.388
50	Jasper	.000	.673
51	Jay	.320	.829

	State	P30_97	A30_97
52	Jefferson	.558	1.168
53	Jennings	22.841	19.262
54	Johnson	.558	2.977
55	Knox	.320	1.243
56	Kosciusko	4.284	5.123
57	LaGrange	.558	1.232
58	Lake	72.510	84.369
59	La Porte	2.568	4.391
60	Lawrence	2.480	3.462
61	Madison	1.397	4.145
62	Marion	28.262	42.833
63	Marshall	5.269	5.656
64	Martin	.000	.242
65	Miami	.558	1.255
66	Monroe	5.269	7.383
67	Montgomery	.000	.862
68	Morgan	.558	1.942
69	Newton	.000	.337
70	Noble	9.762	8.818
71	Ohio	.000	.128
72	Orange	.000	.442
73	Owen	3.347	3.159
74	Parke	.000	.393
75	Perry	3.347	3.111
76	Pike	.000	.296
77	Porter	2.248	4.862
78	Posey	15.360	15.539
79	Pulaski	.000	.316
80	Putnam	.000	.810
81	Randolph	2.010	2.042
82	Ripley	.320	.929
83	Rush	.558	.869
84	St. Joseph	10.364	14.382
85	Scott	10.083	8.629
86	Shelby	.000	.992
87	Spencer	.000	.469
88	Starke	.000	.550
89	Steuben	3.667	3.744
90	Sullivan	.000	.497
91	Switzerland	.000	.203
92	Tippecanoe	3.667	6.370
93	Tipton	.000	.383
94	Union	.000	.168
95	Vanderburgh	21.201	20.822
96	Vermillion	.000	.388
97	Vigo	.558	2.904
98	Wabash	.878	1.577
99	Warren	.000	.192
100	Warrick	.558	1.625
101	Washington	.000	.619
102	Wayne	.000	1.652

	State	P30_97	A30_97
103	Wells	.840	1.260
104	White	5.487	4.179
105	Whitley	.000	.698
106	Iowa	78.876	270.000
107	Kansas	409.356	170.000
108	Kentucky_E	237.626	336.000
109	Kentucky_W	157.752	224.000
110	Louisiana	221.651	522.000
111	Maine	208.672	193.000
112	Maryland	299.529	460.000
113	Massachusetts	605.048	768.000
114	Michigan_E	197.689	540.000
115	Michigan_W	197.689	540.000
116	Minnesota	343.460	407.000
117	Mississippi	696.904	973.000
118	Missouri	309.513	509.000
119	Montana	1.997	34.000
120	Nebraska	86.863	168.000
121	Nevada	74.882	295.000
122	New Hampshire	71.887	143.000
123	New Jersey	1352.872	1347.000
124	New Mexico	25.959	60.000
125	New York	1408.784	1846.000
126	North Carolina	7358.424	5437.000
127	North Dakota	50.920	66.000
128	Ohio_N	352.446	428.000
129	Ohio_M	352.446	428.000
130	Ohio_S	352.446	428.000
131	Oklahoma	129.796	270.000
132	Oregon	252.603	344.000
133	Pennsylvania	932.533	1588.000
134	Rhode Island	84.866	130.000
135	South Carolina	5668.083	3654.000
136	South Dakota	18.970	36.000
137	Tennessee	1626.441	968.000
138	Texas	3240.902	3582.000
139	Utah	227.642	352.000
140	Vermont	12.980	116.000
141	Virginia	1562.542	1375.000
142	Washington	384.395	463.000
143	West Virginia	77.877	252.000
144	Wisconsin	271.573	504.000
145	Wyoming	26.958	17.000

	State	P31_97	A31_97
1	Alabama	14651.294	13610.000
2	Arizona	17155.058	21138.000
3	Arkansas	5929.131	7418.000
4	California	75487.723	81947.000
5	Colorado	14609.844	17486.000
6	Connecticut	1963.148	4036.000
7	Delaware	289.269	1223.000
8	DC	.000	.000
9	Florida	46616.392	54152.000
10	Georgia	21775.423	26240.000
11	Idaho	3814.293	5039.000
12	Illinois_N	54936.401	6415.000
13	Illinois_S	23544.550	2750.000
14	Adams	124.124	129.780
15	Allen	865.138	899.859
16	Bartholomew	375.593	394.250
17	Benton	15.539	15.975
18	Blackford	34.994	36.352
19	Boone	73.796	75.931
20	Brown	26.187	26.985
21	Carroll	385.283	407.045
22	Cass	418.390	441.082
23	Clark	211.841	219.589
24	Clay	44.921	46.245
25	Clinton	475.976	502.405
26	Crawford	17.031	17.509
27	Daviess	252.954	266.410
28	Dearborn	75.244	77.419
29	Decatur	114.510	120.039
30	DeKalb	75.691	78.192
31	Delaware	219.396	226.338
32	Dubois	224.628	235.926
33	Elkhart	419.893	435.741
34	Fayette	42.083	43.265
35	Floyd	260.885	272.744
36	Fountain	41.370	42.907
37	Franklin	37.226	38.333
38	Fulton	64.201	66.973
39	Gibson	127.744	133.676
40	Grant	173.512	180.040
41	Greene	129.579	135.562
42	Hamilton	295.987	305.128
43	Hancock	89.437	92.011
44	Harrison	200.429	210.590
45	Hendricks	250.610	260.530
46	Henry	91.373	94.314
47	Howard	169.148	174.891
48	Huntington	137.082	143.276
49	Jackson	73.661	75.955
50	Jasper	92.702	96.712
51	Jay	124.877	131.160

	State	P31_97	A31_97
52	Jefferson	54.954	56.621
53	Jennings	43.792	45.021
54	Johnson	179.712	184.801
55	Knox	91.147	94.532
56	Kosciusko	302.892	317.125
57	LaGrange	91.302	94.978
58	Lake	1015.572	1051.145
59	La Porte	291.756	303.456
60	Lawrence	86.572	89.378
61	Madison	367.638	382.650
62	Marion	2165.803	2250.744
63	Marshall	158.381	165.498
64	Martin	29.119	30.312
65	Miami	69.164	71.481
66	Monroe	213.450	220.049
67	Montgomery	136.249	142.419
68	Morgan	107.443	110.522
69	Newton	25.735	26.520
70	Noble	223.913	234.890
71	Ohio	9.030	9.283
72	Orange	43.218	44.806
73	Owen	36.501	37.588
74	Parke	62.950	65.811
75	Perry	33.117	34.109
76	Pike	20.845	21.430
77	Porter	299.772	310.202
78	Posey	55.974	57.921
79	Pulaski	36.127	37.573
80	Putnam	59.044	60.764
81	Randolph	60.175	62.346
82	Ripley	44.404	45.713
83	Rush	35.088	36.236
84	St. Joseph	568.666	588.972
85	Scott	112.070	117.562
86	Shelby	105.083	109.128
87	Spencer	45.087	46.728
88	Starke	38.739	39.826
89	Steuben	103.450	107.931
90	Sullivan	34.957	35.938
91	Switzerland	14.321	14.723
92	Tippecanoe	367.358	381.699
93	Tipton	62.230	65.071
94	Union	11.823	12.155
95	Vanderburgh	984.860	1034.420
96	Vermillion	28.911	29.773
97	Vigo	223.115	230.930
98	Wabash	68.841	71.149
99	Warren	15.518	16.016
100	Warrick	83.057	85.389
101	Washington	55.683	57.622
102	Wayne	258.372	270.036

	State	P31_97	A31_97
103	Wells	147.871	155.224
104	White	49.373	51.021
105	Whitley	51.125	52.622
106	Iowa	15638.160	14336.000
107	Kansas	6072.002	7097.000
108	Kentucky_E	8439.068	9070.000
109	Kentucky_W	5625.751	6046.000
110	Louisiana	22970.422	9971.000
111	Maine	888.091	1604.000
112	Maryland	17104.789	16812.000
113	Massachusetts	10911.083	12544.000
114	Michigan_E	11310.591	12543.000
115	Michigan_W	11310.591	12543.000
116	Minnesota	15415.035	16097.000
117	Missisippi	19821.094	21441.000
118	Missouri	16412.484	18387.000
119	Montana	2190.683	2657.000
120	Nebraska	8046.615	9667.000
121	Nevada	9550.284	11081.000
122	New Hampshire	5101.892	1799.000
123	New Jersey	11573.403	14220.000
124	New Mexico	4727.959	6133.000
125	New York	17569.559	21780.000
126	North Carolina	19486.848	23870.000
127	North Dakota	2431.446	2951.000
128	Ohio_N	7039.465	8171.000
129	Ohio_M	7039.465	8171.000
130	Ohio_S	7039.465	8171.000
131	Oklahoma	12887.460	11162.000
132	Oregon	10135.877	12807.000
133	Pennsylvania	53335.721	54818.000
134	Rhode Island	4793.221	798.000
135	South Carolina	12377.711	13769.000
136	South Dakota	2143.059	2254.000
137	Tennessee	23799.424	27119.000
138	Texas	63991.047	70957.000
139	Utah	6360.389	8139.000
140	Vermont	649.973	1329.000
141	Virginia	11975.557	15097.000
142	Washington	12613.183	14876.000
143	West Virginia	4415.761	6346.000
144	Wisconsin	19158.774	24315.000
145	Wyoming	1107.688	1145.000

	State	P32_97	A32_97
1	Alabama	11212.000	8862.138
2	Arizona	3090.000	2671.644
3	Arkansas	10219.000	7110.715
4	California	13024.000	15399.715
5	Colorado	1514.000	1943.469
6	Connecticut	2779.000	3024.730
7	Delaware	1708.000	304.073
8	DC	.000	.000
9	Florida	3234.000	5522.332
10	Georgia	7731.000	9410.270
11	Idaho	185.000	336.081
12	Illinois_N	17037.000	21935.292
13	Illinois_S	7302.000	9401.268
14	Adams	492.536	290.187
15	Allen	2043.365	1195.542
16	Bartholomew	1191.423	685.227
17	Benton	1.285	.790
18	Blackford	42.006	23.638
19	Boone	45.154	27.400
20	Brown	7.001	3.940
21	Carroll	1008.091	555.937
22	Cass	1393.729	793.072
23	Clark	172.342	95.451
24	Clay	230.522	141.387
25	Clinton	1264.183	701.023
26	Crawford	.000	.000
27	Daviess	590.943	326.250
28	Dearborn	5.716	3.150
29	Decatur	394.180	228.866
30	DeKalb	187.552	113.136
31	Delaware	494.732	299.651
32	Dubois	680.980	389.583
33	Elkhart	3173.744	1927.873
34	Fayette	481.726	296.222
35	Floyd	483.042	270.535
36	Fountain	130.644	78.143
37	Franklin	53.889	32.772
38	Fulton	96.313	53.560
39	Gibson	236.848	131.937
40	Grant	571.808	341.930
41	Greene	222.076	122.853
42	Hamilton	200.250	118.277
43	Hancock	191.470	117.373
44	Harrison	510.790	287.598
45	Hendricks	292.819	163.211
46	Henry	259.104	157.135
47	Howard	2338.945	1432.449
48	Huntington	488.759	286.842
49	Jackson	335.564	205.028
50	Jasper	151.101	84.692
51	Jay	301.984	169.469

	State	P32_97	A32_97
52	Jefferson	223.649	136.795
53	Jennings	96.345	59.244
54	Johnson	166.889	102.367
55	Knox	76.742	42.366
56	Kosciusko	757.684	432.437
57	LaGrange	263.485	155.516
58	Lake	900.512	512.480
59	La Porte	417.040	235.943
60	Lawrence	259.104	157.135
61	Madison	1316.010	781.829
62	Marion	4196.480	2439.458
63	Marshall	492.279	287.106
64	Martin	34.299	18.898
65	Miami	42.006	23.638
66	Monroe	77.930	44.376
67	Montgomery	391.386	226.965
68	Morgan	28.197	16.973
69	Newton	28.197	16.973
70	Noble	816.429	474.627
71	Ohio	.000	.000
72	Orange	34.299	18.898
73	Owen	5.716	3.150
74	Parke	100.038	55.120
75	Perry	5.716	3.150
76	Pike	.000	.000
77	Porter	185.355	102.210
78	Posey	34.299	18.898
79	Pulaski	40.728	22.523
80	Putnam	102.062	62.394
81	Randolph	140.362	83.497
82	Ripley	7.001	3.940
83	Rush	22.570	12.929
84	St. Joseph	928.163	545.381
85	Scott	222.076	122.853
86	Shelby	205.247	119.815
87	Spencer	56.779	32.722
88	Starke	37.767	23.224
89	Steuben	484.860	288.939
90	Sullivan	22.481	13.824
91	Switzerland	.000	.000
92	Tippecanoe	1121.946	666.369
93	Tipton	148.211	84.742
94	Union	.000	.000
95	Vanderburgh	2012.888	1109.738
96	Vermillion	4.573	2.520
97	Vigo	189.941	107.735
98	Wabash	88.894	52.470
99	Warren	13.424	7.889
100	Warrick	22.481	13.824
101	Washington	35.583	19.688
102	Wayne	571.551	325.692

	State	P32_97	A32_97
103	Wells	341.499	191.282
104	White	248.815	151.466
105	Whitley	165.392	101.337
106	Iowa	3063.000	5210.257
107	Kansas	1189.000	2413.582
108	Kentucky_E	3371.000	5373.296
109	Kentucky_W	2248.000	3582.864
110	Louisiana	2656.000	2996.723
111	Maine	76.000	290.070
112	Maryland	1827.000	3190.770
113	Massachusetts	7059.000	2558.617
114	Michigan_E	23718.000	21117.094
115	Michigan_W	23718.000	21117.094
116	Minnesota	6528.000	5624.357
117	Mississippi	1502.000	3316.800
118	Missouri	3911.000	5797.399
119	Montana	409.000	326.079
120	Nebraska	1093.000	2194.529
121	Nevada	139.000	737.178
122	New Hampshire	425.000	432.104
123	New Jersey	5897.000	3783.913
124	New Mexico	546.000	304.073
125	New York	3927.000	6287.517
126	North Carolina	3320.000	6233.504
127	North Dakota	188.000	1072.259
128	Ohio_N	14890.000	13501.257
129	Ohio_M	14890.000	13501.257
130	Ohio_S	14890.000	13501.257
131	Oklahoma	1626.000	3029.731
132	Oregon	4023.000	3695.892
133	Pennsylvania	21044.000	21203.115
134	Rhode Island	492.000	517.125
135	South Carolina	4555.000	3347.808
136	South Dakota	167.000	508.123
137	Tennessee	6746.000	8524.056
138	Texas	16266.000	18617.491
139	Utah	2451.000	3184.768
140	Vermont	34.000	145.035
141	Virginia	2494.000	3441.830
142	Washington	4112.000	4152.002
143	West Virginia	6306.000	3505.846
144	Wisconsin	5985.000	8709.101
145	Wyoming	3.000	118.028

	State	P33_97	A33_97
1	Alabama	4208.000	1693.475
2	Arizona	772.000	1268.607
3	Arkansas	1152.000	860.733
4	California	8147.000	8072.497
5	Colorado	1383.000	1353.580
6	Connecticut	1129.000	913.717
7	Delaware	113.000	367.886
8	DC	.000	.000
9	Florida	2546.000	3760.834
10	Georgia	2156.000	3083.044
11	Idaho	145.000	325.899
12	Illinois_N	4130.000	3058.052
13	Illinois_S	1770.000	1310.594
14	Adams	17.427	20.615
15	Allen	101.500	203.539
16	Bartholomew	28.135	119.711
17	Benton	2.069	2.047
18	Blackford	24.204	2.047
19	Boone	9.141	15.181
20	Brown	1.749	.000
21	Carroll	11.563	2.047
22	Cass	21.903	6.653
23	Clark	56.447	70.042
24	Clay	4.335	3.241
25	Clinton	6.503	7.301
26	Crawford	.000	.000
27	Daviess	8.357	10.142
28	Dearborn	15.887	8.300
29	Decatur	74.970	15.284
30	DeKalb	99.713	21.800
31	Delaware	46.780	35.480
32	Dubois	6.047	4.026
33	Elkhart	204.320	53.878
34	Fayette	9.508	23.301
35	Floyd	20.162	21.186
36	Fountain	1.749	.000
37	Franklin	14.977	27.078
38	Fulton	22.024	12.077
39	Gibson	4.661	5.902
40	Grant	24.583	21.766
41	Greene	6.951	.000
42	Hamilton	38.973	13.656
43	Hancock	13.745	7.949
44	Harrison	19.669	27.078
45	Hendricks	5.222	7.983
46	Henry	8.892	12.793
47	Howard	12.329	11.940
48	Huntington	30.364	18.705
49	Jackson	17.482	23.369
50	Jasper	18.253	.341
51	Jay	72.929	11.097

	State	P33_97	A33_97
52	Jefferson	3.695	25.348
53	Jennings	29.091	34.993
54	Johnson	27.611	23.369
55	Knox	25.388	7.140
56	Kosciusko	57.879	34.091
57	LaGrange	5.518	18.695
58	Lake	563.242	946.345
59	La Porte	60.105	69.469
60	Lawrence	43.174	38.438
61	Madison	35.370	13.680
62	Marion	306.929	337.920
63	Marshall	40.439	30.285
64	Martin	10.407	.341
65	Miami	7.072	6.925
66	Monroe	32.798	84.733
67	Montgomery	17.413	6.004
68	Morgan	12.506	9.484
69	Newton	1.478	2.832
70	Noble	44.622	15.693
71	Ohio	.246	.000
72	Orange	1.749	.341
73	Owen	.591	.341
74	Parke	.246	2.047
75	Perry	3.944	5.970
76	Pike	1.749	.000
77	Porter	44.930	17.126
78	Posey	83.653	158.491
79	Pulaski	5.936	16.375
80	Putnam	4.988	5.970
81	Randolph	15.079	22.662
82	Ripley	8.983	4.172
83	Rush	3.104	17.706
84	St. Joseph	119.978	57.153
85	Scott	4.623	6.219
86	Shelby	56.458	13.407
87	Spencer	6.220	5.970
88	Starke	.271	12.793
89	Steuben	49.839	21.844
90	Sullivan	1.872	.000
91	Switzerland	.000	.000
92	Tippecanoe	20.681	95.874
93	Tipton	3.325	5.970
94	Union	.246	.341
95	Vanderburgh	64.602	34.559
96	Vermillion	5.936	.000
97	Vigo	18.238	15.045
98	Wabash	36.101	20.581
99	Warren	3.054	5.970
100	Warrick	6.010	2.047
101	Washington	15.272	25.587
102	Wayne	23.443	12.452

	State	P33_97	A33_97
103	Wells	15.051	10.132
104	White	24.780	10.201
105	Whitley	17.538	4.333
106	Iowa	1373.000	1807.440
107	Kansas	915.000	1882.416
108	Kentucky_E	961.000	1213.624
109	Kentucky_W	641.000	808.749
110	Louisiana	2468.000	3226.000
111	Maine	169.000	392.878
112	Maryland	675.000	1309.594
113	Massachusetts	489.000	1115.654
114	Michigan_E	2603.000	2537.213
115	Michigan_W	2603.000	2537.213
116	Minnesota	1769.000	2017.375
117	Missisippi	718.000	876.728
118	Missouri	2258.000	3078.046
119	Montana	1377.000	819.746
120	Nebraska	1857.000	1253.611
121	Nevada	131.000	583.819
122	New Hampshire	2338.000	369.885
123	New Jersey	3040.000	2078.356
124	New Mexico	147.000	479.851
125	New York	2567.000	4098.729
126	North Carolina	2502.000	2946.087
127	North Dakota	55.000	238.926
128	Ohio_N	3203.000	2091.352
129	Ohio_M	3203.000	2091.352
130	Ohio_S	3203.000	2091.352
131	Oklahoma	2171.000	1944.397
132	Oregon	1059.000	979.696
133	Pennsylvania	7264.000	4239.686
134	Rhode Island	252.000	381.882
135	South Carolina	1110.000	1141.646
136	South Dakota	143.000	189.941
137	Tennessee	2321.000	2424.248
138	Texas	12377.000	15188.291
139	Utah	1044.000	1316.592
140	Vermont	46.000	179.944
141	Virginia	1250.000	1754.456
142	Washington	1113.000	2031.370
143	West Virginia	851.000	1018.684
144	Wisconsin	2179.000	2202.317
145	Wyoming	1266.000	265.918

	State	P34_97	A34_97
1	Alabama	751.537	788.000
2	Arizona	380.260	452.000
3	Arkansas	804.434	466.000
4	California	2561.015	2933.000
5	Colorado	423.176	504.000
6	Connecticut	246.520	266.000
7	Delaware	4.990	75.000
8	DC	.000	.000
9	Florida	811.420	1821.000
10	Georgia	1243.579	1517.000
11	Idaho	97.810	130.000
12	Illinois_N	3004.152	2542.000
13	Illinois_S	1287.494	1089.000
14	Adams	37.876	24.527
15	Allen	220.314	129.782
16	Bartholomew	90.424	70.398
17	Benton	2.844	.806
18	Blackford	11.469	1.173
19	Boone	9.178	7.687
20	Brown	.000	.179
21	Carroll	1.201	1.173
22	Cass	24.439	24.827
23	Clark	26.527	17.622
24	Clay	6.693	14.623
25	Clinton	9.074	8.462
26	Crawford	.000	.000
27	Daviess	5.145	3.352
28	Dearborn	4.064	1.584
29	Decatur	19.233	15.896
30	DeKalb	70.782	18.944
31	Delaware	27.492	37.758
32	Dubois	30.072	14.904
33	Elkhart	187.068	196.254
34	Fayette	13.667	35.831
35	Floyd	52.240	12.581
36	Fountain	.000	5.603
37	Franklin	5.993	3.482
38	Fulton	10.917	4.870
39	Gibson	13.730	3.396
40	Grant	27.471	32.784
41	Greene	.000	.440
42	Hamilton	36.806	11.120
43	Hancock	5.155	13.446
44	Harrison	5.993	6.749
45	Hendricks	6.325	4.636
46	Henry	12.296	17.409
47	Howard	19.545	132.550
48	Huntington	17.259	21.496
49	Jackson	26.193	28.194
50	Jasper	1.843	1.405
51	Jay	8.854	5.229

	State	P34_97	A34_97
52	Jefferson	19.659	21.821
53	Jennings	24.819	9.171
54	Johnson	34.682	18.298
55	Knox	2.015	1.136
56	Kosciusko	45.999	27.584
57	LaGrange	31.502	16.029
58	Lake	42.135	46.700
59	La Porte	60.014	32.385
60	Lawrence	14.135	17.629
61	Madison	17.115	59.497
62	Marion	212.185	280.907
63	Marshall	67.841	17.419
64	Martin	.200	.122
65	Miami	14.330	3.555
66	Monroe	42.520	24.388
67	Montgomery	24.058	14.104
68	Morgan	8.055	8.649
69	Newton	13.983	2.403
70	Noble	62.682	30.028
71	Ohio	.000	.000
72	Orange	4.992	.122
73	Owen	.474	.122
74	Parke	5.993	.733
75	Perry	3.502	2.138
76	Pike	.000	.000
77	Porter	18.534	11.108
78	Posey	7.964	19.262
79	Pulaski	9.605	5.937
80	Putnam	35.676	7.635
81	Randolph	12.488	12.119
82	Ripley	.274	.709
83	Rush	12.028	6.780
84	St. Joseph	108.212	58.402
85	Scott	30.363	3.026
86	Shelby	63.094	12.837
87	Spencer	13.770	3.527
88	Starke	12.296	7.372
89	Steuben	28.301	25.775
90	Sullivan	4.792	1.389
91	Switzerland	4.792	.000
92	Tippecanoe	70.354	93.236
93	Tipton	3.502	4.993
94	Union	.200	.577
95	Vanderburgh	106.086	37.787
96	Vermillion	.000	18.529
97	Vigo	54.936	19.042
98	Wabash	14.417	12.962
99	Warren	3.776	2.578
100	Warrick	1.474	2.863
101	Washington	21.141	9.236
102	Wayne	38.602	15.548

	State	P34_97	A34_97
103	Wells	26.480	6.414
104	White	15.759	16.480
105	Whitley	15.082	10.769
106	Iowa	1515.051	840.000
107	Kansas	798.446	584.000
108	Kentucky_E	532.963	551.000
109	Kentucky_W	355.308	368.000
110	Louisiana	277.460	626.000
111	Maine	75.852	153.000
112	Maryland	342.334	824.000
113	Massachusetts	356.306	465.000
114	Michigan_E	2313.497	2739.000
115	Michigan_W	2313.497	2739.000
116	Minnesota	746.547	808.000
117	Mississippi	563.902	471.000
118	Missouri	996.061	1290.000
119	Montana	50.901	233.000
120	Nebraska	512.003	347.000
121	Nevada	145.716	179.000
122	New Hampshire	102.800	101.000
123	New Jersey	711.615	1269.000
124	New Mexico	60.881	164.000
125	New York	2046.017	1898.000
126	North Carolina	1478.123	1291.000
127	North Dakota	120.765	240.000
128	Ohio_N	2307.508	1335.000
129	Ohio_M	2307.508	1335.000
130	Ohio_S	2307.508	1335.000
131	Oklahoma	768.504	772.000
132	Oregon	362.295	508.000
133	Pennsylvania	1718.654	1746.000
134	Rhode Island	34.932	110.000
135	South Carolina	788.465	748.000
136	South Dakota	118.769	130.000
137	Tennessee	2149.815	1575.000
138	Texas	2672.797	4108.000
139	Utah	157.693	250.000
140	Vermont	62.878	48.000
141	Virginia	589.852	874.000
142	Washington	457.110	810.000
143	West Virginia	186.637	244.000
144	Wisconsin	2240.638	1070.000
145	Wyoming	30.940	76.000

	State	P35_97	A35_97
1	Alabama	686.596	556.000
2	Arizona	358.268	592.000
3	Arkansas	621.729	523.000
4	California	5046.683	4349.000
5	Colorado	398.186	455.000
6	Connecticut	272.443	374.000
7	Delaware	176.639	130.000
8	DC	.000	.000
9	Florida	927.105	1702.000
10	Georgia	1558.813	1473.000
11	Idaho	119.755	138.000
12	Illinois_N	1668.589	1284.000
13	Illinois_S	714.539	550.000
14	Adams	10.546	17.487
15	Allen	77.858	90.914
16	Bartholomew	24.957	16.081
17	Benton	1.732	1.657
18	Blackford	15.325	6.208
19	Boone	7.212	4.142
20	Brown	1.423	1.351
21	Carroll	10.249	1.822
22	Cass	16.867	13.529
23	Clark	35.980	22.641
24	Clay	2.610	4.697
25	Clinton	6.002	5.372
26	Crawford	.000	.952
27	Daviess	4.734	4.390
28	Dearborn	6.323	5.788
29	Decatur	67.636	7.161
30	DeKalb	76.461	31.391
31	Delaware	44.505	14.058
32	Dubois	3.606	16.866
33	Elkhart	149.257	92.858
34	Fayette	8.896	2.351
35	Floyd	14.851	25.523
36	Fountain	1.423	1.636
37	Franklin	6.433	9.716
38	Fulton	20.141	3.682
39	Gibson	3.131	7.844
40	Grant	4.104	13.769
41	Greene	2.206	3.018
42	Hamilton	29.026	30.945
43	Hancock	10.889	5.121
44	Harrison	7.952	10.784
45	Hendricks	4.768	9.600
46	Henry	8.303	6.730
47	Howard	4.958	13.680
48	Huntington	24.780	8.538
49	Jackson	16.393	9.704
50	Jasper	16.013	3.435
51	Jay	23.499	5.186

	State	P35_97	A35_97
52	Jefferson	3.298	5.145
53	Jennings	21.332	17.003
54	Johnson	25.574	20.030
55	Knox	3.808	4.646
56	Kosciusko	35.100	21.173
57	LaGrange	5.053	12.954
58	Lake	282.949	247.458
59	La Porte	52.797	21.315
60	Lawrence	19.837	12.620
61	Madison	24.957	16.460
62	Marion	251.777	109.052
63	Marshall	30.513	40.573
64	Martin	.237	.951
65	Miami	6.263	8.118
66	Monroe	15.377	19.884
67	Montgomery	15.230	13.248
68	Morgan	7.686	7.087
69	Newton	1.423	7.240
70	Noble	33.189	29.734
71	Ohio	.237	.505
72	Orange	1.423	4.039
73	Owen	.308	2.058
74	Parke	.237	3.847
75	Perry	1.423	1.738
76	Pike	1.423	1.165
77	Porter	36.748	17.198
78	Posey	40.148	39.751
79	Pulaski	4.152	1.242
80	Putnam	.237	18.630
81	Randolph	3.666	4.192
82	Ripley	6.015	3.408
83	Rush	1.423	2.456
84	St. Joseph	105.345	61.891
85	Scott	3.120	16.945
86	Shelby	8.707	30.411
87	Spencer	1.423	6.772
88	Starke	.000	4.465
89	Steuben	33.202	12.459
90	Sullivan	.237	4.253
91	Switzerland	.000	3.100
92	Tippecanoe	15.480	22.134
93	Tipton	2.942	1.506
94	Union	.237	.661
95	Vanderburgh	45.620	56.774
96	Vermillion	4.152	1.525
97	Vigo	15.895	31.807
98	Wabash	25.112	6.379
99	Warren	2.942	.886
100	Warrick	5.528	4.772
101	Washington	14.448	5.380
102	Wayne	15.088	21.521

	State	P35_97	A35_97
103	Wells	14.495	12.354
104	White	22.300	6.978
105	Whitley	16.630	8.763
106	Iowa	338.308	299.000
107	Kansas	675.619	294.000
108	Kentucky_E	579.815	396.000
109	Kentucky_W	387.208	264.000
110	Louisiana	347.290	439.000
111	Maine	32.933	60.000
112	Maryland	423.135	825.000
113	Massachusetts	833.297	816.000
114	Michigan_E	511.953	869.000
115	Michigan_W	511.953	869.000
116	Minnesota	728.511	736.000
117	Mississippi	970.017	591.000
118	Missouri	1033.886	804.000
119	Montana	32.933	69.000
120	Nebraska	125.743	242.000
121	Nevada	78.839	308.000
122	New Hampshire	114.765	87.000
123	New Jersey	1013.927	1272.000
124	New Mexico	88.818	187.000
125	New York	1137.674	1448.000
126	North Carolina	1631.664	912.000
127	North Dakota	32.933	64.000
128	Ohio_N	721.525	712.000
129	Ohio_M	721.525	712.000
130	Ohio_S	721.525	712.000
131	Oklahoma	232.525	383.000
132	Oregon	395.192	397.000
133	Pennsylvania	1783.354	1533.000
134	Rhode Island	76.843	66.000
135	South Carolina	577.819	516.000
136	South Dakota	153.686	84.000
137	Tennessee	1498.936	1438.000
138	Texas	3980.862	4610.000
139	Utah	168.655	279.000
140	Vermont	38.920	54.000
141	Virginia	441.098	759.000
142	Washington	272.443	554.000
143	West Virginia	119.755	131.000
144	Wisconsin	1238.468	962.000
145	Wyoming	103.788	39.000

	State	P36_97	A36_97
1	Alabama	956.293	831.000
2	Arizona	685.493	641.000
3	Arkansas	441.674	527.000
4	California	3739.236	5590.000
5	Colorado	228.831	825.000
6	Connecticut	329.756	292.000
7	Delaware	127.905	292.000
8	DC	.000	.000
9	Florida	1020.246	2650.000
10	Georgia	3158.665	3555.000
11	Idaho	106.921	136.000
12	Illinois_N	3330.538	3025.000
13	Illinois_S	1426.945	1297.000
14	Adams	128.569	73.318
15	Allen	476.322	271.630
16	Bartholomew	196.671	112.155
17	Benton	.561	.320
18	Blackford	3.369	1.921
19	Boone	17.236	9.829
20	Brown	.561	.320
21	Carroll	3.369	1.921
22	Cass	171.912	98.035
23	Clark	3.369	1.921
24	Clay	98.251	56.029
25	Clinton	30.598	17.449
26	Crawford	.000	.000
27	Daviess	4.435	2.529
28	Dearborn	.000	.000
29	Decatur	79.836	45.528
30	DeKalb	66.979	38.196
31	Delaware	184.993	105.495
32	Dubois	98.251	56.029
33	Elkhart	1224.940	698.541
34	Fayette	210.538	120.063
35	Floyd	29.981	17.097
36	Fountain	42.108	24.013
37	Franklin	21.054	12.006
38	Fulton	3.369	1.921
39	Gibson	9.825	5.603
40	Grant	183.702	104.759
41	Greene	3.369	1.921
42	Hamilton	54.291	30.960
43	Hancock	81.184	46.296
44	Harrison	42.108	24.013
45	Hendricks	12.801	7.300
46	Henry	98.251	56.029
47	Howard	982.512	560.293
48	Huntington	119.923	68.388
49	Jackson	137.664	78.505
50	Jasper	9.825	5.603
51	Jay	21.054	12.006

	State	P36_97	A36_97
52	Jefferson	92.749	52.892
53	Jennings	42.108	24.013
54	Johnson	71.190	40.597
55	Knox	.561	.320
56	Kosciusko	102.294	58.335
57	LaGrange	70.685	40.309
58	Lake	111.501	63.585
59	La Porte	42.108	24.013
60	Lawrence	98.251	56.029
61	Madison	387.784	221.140
62	Marion	869.944	496.099
63	Marshall	108.469	61.856
64	Martin	.000	.000
65	Miami	3.369	1.921
66	Monroe	9.825	5.603
67	Montgomery	77.366	44.119
68	Morgan	9.825	5.603
69	Newton	9.825	5.603
70	Noble	169.441	96.627
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	.561	.320
78	Posey	.000	.000
79	Pulaski	.561	.320
80	Putnam	42.108	24.013
81	Randolph	42.108	24.013
82	Ripley	.561	.320
83	Rush	3.369	1.921
84	St. Joseph	232.266	132.453
85	Scott	3.369	1.921
86	Shelby	45.982	26.222
87	Spencer	9.825	5.603
88	Starke	16.506	9.413
89	Steuben	148.949	84.940
90	Sullivan	9.825	5.603
91	Switzerland	.000	.000
92	Tippecanoe	329.450	187.874
93	Tipton	21.054	12.006
94	Union	.000	.000
95	Vanderburgh	4.548	2.593
96	Vermillion	.000	.000
97	Vigo	21.054	12.006
98	Wabash	23.861	13.607
99	Warren	3.369	1.921
100	Warrick	9.825	5.603
101	Washington	.561	.320
102	Wayne	73.660	42.006

	State	P36_97	A36_97
103	Wells	21.335	12.166
104	White	98.251	56.029
105	Whitley	69.786	39.797
106	Iowa	2063.475	1182.000
107	Kansas	495.634	842.000
108	Kentucky_E	2831.907	2226.000
109	Kentucky_W	1888.604	1484.000
110	Louisiana	352.739	893.000
111	Maine	102.924	183.000
112	Maryland	866.360	1928.000
113	Massachusetts	271.799	932.000
114	Michigan_E	12165.008	9569.000
115	Michigan_W	12165.008	9569.000
116	Minnesota	1316.027	1478.000
117	Mississippi	666.507	509.000
118	Missouri	4300.821	3827.000
119	Montana	43.968	202.000
120	Nebraska	464.657	600.000
121	Nevada	101.925	212.000
122	New Hampshire	78.942	147.000
123	New Jersey	1851.631	2250.000
124	New Mexico	72.946	272.000
125	New York	1538.863	2952.000
126	North Carolina	1812.660	1864.000
127	North Dakota	169.874	404.000
128	Ohio_N	4170.917	3584.000
129	Ohio_M	4170.917	3584.000
130	Ohio_S	4170.917	3584.000
131	Oklahoma	658.513	1320.000
132	Oregon	679.498	705.000
133	Pennsylvania	2586.089	2505.000
134	Rhode Island	13.990	40.000
135	South Carolina	741.452	833.000
136	South Dakota	127.905	232.000
137	Tennessee	2865.882	2633.000
138	Texas	2271.321	5195.000
139	Utah	373.724	484.000
140	Vermont	49.963	66.000
141	Virginia	1277.056	1813.000
142	Washington	409.697	792.000
143	West Virginia	518.617	276.000
144	Wisconsin	3322.544	2283.000
145	Wyoming	7.994	71.000

	State	P37_97	A37_97
1	Alabama	248.663	60.000
2	Arizona	31.702	39.000
3	Arkansas	33.683	49.000
4	California	128.789	190.000
5	Colorado	18.823	14.000
6	Connecticut	51.516	41.000
7	Delaware	6.935	4.000
8	DC	.000	.000
9	Florida	120.864	170.000
10	Georgia	456.707	211.000
11	Idaho	1.981	18.000
12	Illinois_N	437.884	473.000
13	Illinois_S	187.240	203.000
14	Adams	1.412	.293
15	Allen	19.980	1.816
16	Bartholomew	5.759	.000
17	Benton	.484	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	1.041	2.958
24	Clay	.081	.000
25	Clinton	.000	.000
26	Crawford	.000	.000
27	Daviess	.000	.293
28	Dearborn	.000	.293
29	Decatur	.081	.000
30	DeKalb	19.222	.000
31	Delaware	5.783	.000
32	Dubois	.000	.000
33	Elkhart	9.695	.293
34	Fayette	.484	.000
35	Floyd	.081	.000
36	Fountain	6.050	.000
37	Franklin	.000	1.757
38	Fulton	3.025	.000
39	Gibson	.000	.000
40	Grant	1.412	.000
41	Greene	1.412	.000
42	Hamilton	3.678	.293
43	Hancock	.081	.000
44	Harrison	.000	1.757
45	Hendricks	1.412	.000
46	Henry	3.025	.000
47	Howard	6.050	.000
48	Huntington	1.363	.293
49	Jackson	3.993	.000
50	Jasper	.000	.000
51	Jay	.000	.293

	State	P37_97	A37_97
52	Jefferson	.081	.000
53	Jennings	.484	1.757
54	Johnson	2.420	.000
55	Knox	3.025	.293
56	Kosciusko	14.116	.293
57	LaGrange	.081	.000
58	Lake	168.848	63.234
59	La Porte	12.793	.293
60	Lawrence	14.116	1.757
61	Madison	1.863	.000
62	Marion	29.441	3.485
63	Marshall	3.081	1.757
64	Martin	1.412	.000
65	Miami	.000	.000
66	Monroe	.000	1.757
67	Montgomery	6.050	.000
68	Morgan	.484	.000
69	Newton	1.412	.000
70	Noble	6.025	.000
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	3.025	.000
76	Pike	.484	.000
77	Porter	65.739	.000
78	Posey	.000	10.983
79	Pulaski	1.412	.000
80	Putnam	.000	.000
81	Randolph	2.460	.293
82	Ripley	.000	.293
83	Rush	3.025	.000
84	St. Joseph	14.083	.293
85	Scott	.081	.293
86	Shelby	4.315	.000
87	Spencer	1.412	.000
88	Starke	.000	.000
89	Steuben	4.041	.293
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	14.116	.293
93	Tipton	.484	.000
94	Union	.000	.000
95	Vanderburgh	1.412	.000
96	Vermillion	.000	.000
97	Vigo	3.025	.000
98	Wabash	6.050	.293
99	Warren	.000	.000
100	Warrick	30.248	.000
101	Washington	.081	.000
102	Wayne	7.397	.000

	State	P37_97	A37_97
103	Wells	1.412	.000
104	White	.484	.000
105	Whitley	4.896	.000
106	Iowa	92.134	19.000
107	Kansas	22.786	109.000
108	Kentucky_E	78.264	107.000
109	Kentucky_W	51.516	72.000
110	Louisiana	73.311	463.000
111	Maine	5.944	6.000
112	Maryland	33.683	26.000
113	Massachusetts	6.935	25.000
114	Michigan_E	39.628	90.000
115	Michigan_W	39.628	90.000
116	Minnesota	67.367	36.000
117	Missisippi	27.739	15.000
118	Missouri	104.022	149.000
119	Montana	9.907	22.000
120	Nebraska	9.907	3.000
121	Nevada	.000	7.000
122	New Hampshire	29.721	8.000
123	New Jersey	85.199	62.000
124	New Mexico	.000	82.000
125	New York	39.628	141.000
126	North Carolina	50.525	27.000
127	North Dakota	.000	12.000
128	Ohio_N	76.283	42.000
129	Ohio_M	76.283	42.000
130	Ohio_S	76.283	42.000
131	Oklahoma	44.581	104.000
132	Oregon	214.979	235.000
133	Pennsylvania	799.485	358.000
134	Rhode Island	28.730	3.000
135	South Carolina	48.544	60.000
136	South Dakota	4.953	5.000
137	Tennessee	93.125	77.000
138	Texas	424.015	729.000
139	Utah	57.460	162.000
140	Vermont	1.981	6.000
141	Virginia	31.702	45.000
142	Washington	146.622	206.000
143	West Virginia	94.115	37.000
144	Wisconsin	82.227	44.000
145	Wyoming	.991	88.000

	State	P38_97	A38_97
1	Alabama	9.847	27.000
2	Arizona	26.587	64.000
3	Arkansas	4.923	12.000
4	California	395.846	379.000
5	Colorado	25.602	35.000
6	Connecticut	106.347	27.000
7	Delaware	12.801	4.000
8	DC	.000	.000
9	Florida	103.393	137.000
10	Georgia	211.709	163.000
11	Idaho	.985	7.000
12	Illinois_N	56.127	76.000
13	Illinois_S	23.633	33.000
14	Adams	.113	.316
15	Allen	6.507	12.442
16	Bartholomew	.568	.884
17	Benton	.022	.158
18	Blackford	.056	.117
19	Boone	.308	.592
20	Brown	.008	.019
21	Carroll	.036	.210
22	Cass	.234	.482
23	Clark	.936	1.687
24	Clay	.023	.094
25	Clinton	.122	.280
26	Crawford	.008	.009
27	Daviess	.081	.245
28	Dearborn	.135	.242
29	Decatur	.099	.415
30	DeKalb	.250	.404
31	Delaware	.854	1.461
32	Dubois	.966	1.516
33	Elkhart	3.638	7.370
34	Fayette	.070	.234
35	Floyd	.505	.994
36	Fountain	.021	.125
37	Franklin	.050	.115
38	Fulton	.039	.162
39	Gibson	.082	.182
40	Grant	.403	.947
41	Greene	.072	.200
42	Hamilton	2.636	5.180
43	Hancock	.144	.543
44	Harrison	.152	.253
45	Hendricks	.686	1.082
46	Henry	.179	.770
47	Howard	.513	.773
48	Huntington	.186	.488
49	Jackson	.211	.565
50	Jasper	.101	.238
51	Jay	.051	.241

	State	P38_97	A38_97
52	Jefferson	.134	.243
53	Jennings	.058	1.673
54	Johnson	.482	.788
55	Knox	.304	.742
56	Kosciusko	.423	.971
57	LaGrange	.201	.527
58	Lake	4.331	6.977
59	La Porte	.690	1.559
60	Lawrence	.133	.261
61	Madison	.478	1.030
62	Marion	18.252	33.090
63	Marshall	.407	.908
64	Martin	.018	.081
65	Miami	.162	.647
66	Monroe	.451	1.753
67	Montgomery	.133	.258
68	Morgan	.270	.410
69	Newton	.025	.125
70	Noble	.169	1.145
71	Ohio	.000	.000
72	Orange	.037	.098
73	Owen	.050	.313
74	Parke	.050	.115
75	Perry	.048	.345
76	Pike	.067	.116
77	Porter	1.129	2.100
78	Posey	.190	.670
79	Pulaski	.085	.347
80	Putnam	.042	.099
81	Randolph	.091	.159
82	Ripley	.312	.520
83	Rush	.096	.228
84	St. Joseph	3.724	7.545
85	Scott	.052	.790
86	Shelby	.592	.799
87	Spencer	.058	.297
88	Starke	.035	.083
89	Steuben	.171	.452
90	Sullivan	.047	.196
91	Switzerland	.008	.019
92	Tippecanoe	.576	1.504
93	Tipton	.060	.209
94	Union	.050	.115
95	Vanderburgh	2.932	6.382
96	Vermillion	.009	.086
97	Vigo	.775	1.620
98	Wabash	.135	.274
99	Warren	.050	.115
100	Warrick	.109	.346
101	Washington	.068	.086
102	Wayne	.869	1.393

	State	P38_97	A38_97
103	Wells	.086	1.633
104	White	.113	.477
105	Whitley	.147	.256
106	Iowa	7.878	18.000
107	Kansas	14.770	18.000
108	Kentucky_E	41.357	13.000
109	Kentucky_W	27.571	9.000
110	Louisiana	23.633	42.000
111	Maine	18.709	11.000
112	Maryland	96.500	66.000
113	Massachusetts	85.668	88.000
114	Michigan_E	30.525	45.000
115	Michigan_W	30.525	45.000
116	Minnesota	124.071	87.000
117	Missisippi	36.434	15.000
118	Missouri	72.867	58.000
119	Montana	1.969	7.000
120	Nebraska	139.826	34.000
121	Nevada	33.480	20.000
122	New Hampshire	16.740	5.000
123	New Jersey	82.714	155.000
124	New Mexico	2.954	22.000
125	New York	164.444	157.000
126	North Carolina	35.449	142.000
127	North Dakota	14.770	4.000
128	Ohio_N	25.602	28.000
129	Ohio_M	25.602	28.000
130	Ohio_S	25.602	28.000
131	Oklahoma	17.724	19.000
132	Oregon	29.541	46.000
133	Pennsylvania	92.561	90.000
134	Rhode Island	15.755	9.000
135	South Carolina	65.974	44.000
136	South Dakota	2.954	5.000
137	Tennessee	54.158	47.000
138	Texas	142.780	195.000
139	Utah	25.602	23.000
140	Vermont	1.969	2.000
141	Virginia	31.510	73.000
142	Washington	126.041	55.000
143	West Virginia	1.969	7.000
144	Wisconsin	60.066	42.000
145	Wyoming	6.893	3.000

	State	P39_37	A39_97
1	Alabama	501.000	250.142
2	Arizona	387.000	402.839
3	Arkansas	295.000	443.022
4	California	1783.000	1514.914
5	Colorado	225.000	440.008
6	Connecticut	127.000	206.944
7	Delaware	34.000	49.225
8	DC	.000	.000
9	Florida	417.000	1146.231
10	Georgia	868.000	807.686
11	Idaho	25.000	65.298
12	Illinois_N	314.000	458.091
13	Illinois_S	135.000	195.894
14	Adams	8.209	2.698
15	Allen	30.700	26.338
16	Bartholomew	17.207	5.687
17	Benton	.830	.774
18	Blackford	.256	1.140
19	Boone	1.431	3.574
20	Brown	.020	1.204
21	Carroll	5.181	1.624
22	Cass	6.331	3.272
23	Clark	15.218	7.658
24	Clay	3.676	2.136
25	Clinton	1.912	2.738
26	Crawford	.000	.848
27	Daviess	.969	2.400
28	Dearborn	.000	3.646
29	Decatur	3.013	1.989
30	DeKalb	2.549	3.167
31	Delaware	8.570	9.669
32	Dubois	92.446	3.177
33	Elkhart	96.146	14.394
34	Fayette	8.398	2.095
35	Floyd	7.057	5.715
36	Fountain	1.518	1.458
37	Franklin	.759	1.753
38	Fulton	.121	1.641
39	Gibson	.354	2.598
40	Grant	8.982	5.980
41	Greene	.256	2.689
42	Hamilton	5.478	13.403
43	Hancock	3.736	4.353
44	Harrison	10.273	2.705
45	Hendricks	.596	7.852
46	Henry	5.902	3.947
47	Howard	40.473	6.826
48	Huntington	4.322	3.063
49	Jackson	5.771	3.306
50	Jasper	.489	2.358
51	Jay	1.568	1.762

	State	P39_37	A39_97
52	Jefferson	3.478	2.535
53	Jennings	1.518	2.180
54	Johnson	3.740	8.878
55	Knox	.155	3.214
56	Kosciusko	7.815	5.890
57	LaGrange	6.609	2.760
58	Lake	7.432	39.237
59	La Porte	3.879	8.897
60	Lawrence	3.676	3.708
61	Madison	19.522	10.779
62	Marion	48.436	69.113
63	Marshall	4.719	3.601
64	Martin	.000	.848
65	Miami	5.181	2.842
66	Monroe	1.299	9.654
67	Montgomery	2.789	3.021
68	Morgan	.489	5.249
69	Newton	1.164	1.181
70	Noble	6.917	3.623
71	Ohio	.000	.450
72	Orange	23.609	1.550
73	Owen	.000	1.717
74	Parke	.135	1.378
75	Perry	3.953	1.549
76	Pike	.000	1.038
77	Porter	.708	11.695
78	Posey	.000	2.185
79	Pulaski	.155	1.106
80	Putnam	1.518	2.839
81	Randolph	1.653	2.223
82	Ripley	2.381	2.111
83	Rush	.121	1.486
84	St. Joseph	10.638	21.350
85	Scott	.931	1.817
86	Shelby	6.136	3.476
87	Spencer	10.472	1.643
88	Starke	.730	1.929
89	Steuben	5.504	2.622
90	Sullivan	.354	1.740
91	Switzerland	.135	.713
92	Tippecanoe	21.993	11.829
93	Tipton	.759	1.342
94	Union	.000	.589
95	Vanderburgh	5.574	13.887
96	Vermillion	.000	1.359
97	Vigo	1.568	8.620
98	Wabash	.995	2.826
99	Warren	.121	.672
100	Warrick	.489	4.135
101	Washington	23.629	2.170
102	Wayne	12.288	5.790

	State	P39_37	A39_97
103	Wells	.904	2.225
104	White	5.902	2.037
105	Whitley	3.109	2.445
106	Iowa	359.000	159.729
107	Kansas	116.000	189.867
108	Kentucky_E	80.000	140.642
109	Kentucky_W	53.000	94.431
110	Louisiana	38.000	203.931
111	Maine	33.000	35.160
112	Maryland	167.000	448.045
113	Massachusetts	256.000	379.733
114	Michigan_E	857.000	533.435
115	Michigan_W	857.000	533.435
116	Minnesota	260.000	279.275
117	Mississippi	766.000	279.275
118	Missouri	1024.000	667.044
119	Montana	13.000	29.133
120	Nebraska	112.000	96.440
121	Nevada	38.000	108.495
122	New Hampshire	12.000	58.266
123	New Jersey	164.000	601.746
124	New Mexico	8.000	69.316
125	New York	644.000	1051.800
126	North Carolina	1588.000	858.920
127	North Dakota	24.000	38.174
128	Ohio_N	410.000	356.628
129	Ohio_M	410.000	356.628
130	Ohio_S	410.000	356.628
131	Oklahoma	46.000	121.555
132	Oregon	115.000	160.734
133	Pennsylvania	692.000	872.984
134	Rhode Island	16.000	34.156
135	South Carolina	245.000	287.311
136	South Dakota	14.000	24.110
137	Tennessee	773.000	391.788
138	Texas	1617.000	1929.808
139	Utah	123.000	185.848
140	Vermont	39.000	39.179
141	Virginia	753.000	443.022
142	Washington	318.000	595.719
143	West Virginia	45.000	56.257
144	Wisconsin	616.000	340.554
145	Wyoming	2.000	25.115

	State	P40_97	A40_97
1	Alabama	2965.000	1716.992
2	Arizona	580.000	1388.803
3	Arkansas	765.000	838.485
4	California	22906.000	7018.057
5	Colorado	2787.000	1573.910
6	Connecticut	1303.000	497.287
7	Delaware	804.000	328.190
8	DC	.000	.000
9	Florida	4027.000	5355.095
10	Georgia	6226.000	4210.434
11	Idaho	176.000	362.209
12	Illinois_N	3931.000	2429.404
13	Illinois_S	1685.000	1041.602
14	Adams	20.758	29.094
15	Allen	177.384	93.375
16	Bartholomew	63.552	20.807
17	Benton	2.644	8.688
18	Blackford	5.892	6.488
19	Boone	12.547	11.753
20	Brown	4.446	4.906
21	Carroll	63.730	5.340
22	Cass	70.361	16.658
23	Clark	41.730	48.598
24	Clay	7.633	9.132
25	Clinton	78.808	10.162
26	Crawford	2.898	4.895
27	Daviess	41.980	15.791
28	Dearborn	12.793	12.342
29	Decatur	19.098	7.453
30	DeKalb	12.817	33.863
31	Delaware	38.199	33.905
32	Dubois	38.386	70.687
33	Elkhart	127.920	271.461
34	Fayette	7.161	6.891
35	Floyd	43.634	39.575
36	Fountain	6.977	5.145
37	Franklin	6.324	7.134
38	Fulton	10.762	14.630
39	Gibson	21.345	8.542
40	Grant	35.232	21.773
41	Greene	22.654	10.949
42	Hamilton	67.680	48.658
43	Hancock	15.208	15.297
44	Harrison	33.347	14.862
45	Hendricks	43.159	27.929
46	Henry	21.470	15.088
47	Howard	28.616	24.556
48	Huntington	23.931	13.055
49	Jackson	13.494	21.194
50	Jasper	15.539	10.177
51	Jay	20.785	7.902

	State	P40_97	A40_97
52	Jefferson	10.327	10.901
53	Jennings	44.853	9.628
54	Johnson	31.570	65.036
55	Knox	15.372	13.237
56	Kosciusko	57.165	30.480
57	LaGrange	16.347	75.072
58	Lake	177.613	137.354
59	La Porte	50.056	37.548
60	Lawrence	15.666	16.268
61	Madison	63.768	41.891
62	Marion	405.191	253.199
63	Marshall	32.488	34.450
64	Martin	4.892	3.139
65	Miami	12.704	14.084
66	Monroe	42.203	33.856
67	Montgomery	22.792	11.409
68	Morgan	19.269	23.687
69	Newton	4.369	3.884
70	Noble	54.771	14.021
71	Ohio	1.536	1.479
72	Orange	7.291	21.139
73	Owen	12.185	10.000
74	Parke	10.528	10.676
75	Perry	11.609	7.199
76	Pike	3.547	5.519
77	Porter	51.670	43.202
78	Posey	15.446	7.536
79	Pulaski	6.075	3.990
80	Putnam	10.036	11.444
81	Randolph	10.159	21.498
82	Ripley	7.545	11.223
83	Rush	6.941	6.994
84	St. Joseph	113.493	88.274
85	Scott	36.132	8.082
86	Shelby	17.698	11.432
87	Spencer	7.609	10.703
88	Starke	6.592	17.682
89	Steuben	23.324	10.343
90	Sullivan	5.948	8.848
91	Switzerland	2.437	2.345
92	Tippecanoe	67.820	40.691
93	Tipton	10.406	6.521
94	Union	2.012	2.287
95	Vanderburgh	201.322	54.322
96	Vermillion	4.911	4.470
97	Vigo	38.703	32.456
98	Wabash	12.649	15.435
99	Warren	2.630	4.317
100	Warrick	15.130	18.023
101	Washington	9.412	15.071
102	Wayne	43.227	21.148

	State	P40_97	A40_97
103	Wells	25.624	9.582
104	White	9.355	10.385
105	Whitley	8.689	14.184
106	Iowa	801.000	826.478
107	Kansas	605.000	714.413
108	Kentucky_E	1013.000	1065.616
109	Kentucky_W	675.000	710.411
110	Louisiana	416.000	844.488
111	Maine	113.000	317.183
112	Maryland	2969.000	7076.090
113	Massachusetts	1163.000	1736.003
114	Michigan_E	1270.000	1687.976
115	Michigan_W	1270.000	1687.976
116	Minnesota	1708.000	1635.946
117	Missisippi	1123.000	847.490
118	Missouri	1600.000	1928.114
119	Montana	478.000	454.263
120	Nebraska	831.000	435.252
121	Nevada	894.000	1201.695
122	New Hampshire	216.000	519.300
123	New Jersey	2731.000	2094.210
124	New Mexico	42.000	305.176
125	New York	3965.000	4408.548
126	North Carolina	3774.000	4867.814
127	North Dakota	91.000	180.104
128	Ohio_N	1167.000	1135.656
129	Ohio_M	1167.000	1135.656
130	Ohio_S	1167.000	1135.656
131	Oklahoma	777.000	676.391
132	Oregon	723.000	1383.800
133	Pennsylvania	9635.000	19952.533
134	Rhode Island	711.000	1770.023
135	South Carolina	570.000	1301.752
136	South Dakota	789.000	268.155
137	Tennessee	1784.000	2243.297
138	Texas	7154.000	7775.494
139	Utah	428.000	794.459
140	Vermont	436.000	1277.739
141	Virginia	2685.000	1965.136
142	Washington	1812.000	2569.485
143	West Virginia	134.000	408.236
144	Wisconsin	2211.000	1741.006
145	Wyoming	19.000	188.109

	State	P41_97	A41_97
1	Alabama	2129.856	6028.000
2	Arizona	343.977	334.000
3	Arkansas	1742.882	5476.000
4	California	22071.510	21283.000
5	Colorado	1982.866	665.000
6	Connecticut	5406.635	1618.000
7	Delaware	331.978	322.000
8	DC	.000	.000
9	Florida	5850.605	4745.000
10	Georgia	4105.723	3435.000
11	Idaho	143.990	19.000
12	Illinois_N	9090.387	8903.000
13	Illinois_S	3895.737	3816.000
14	Adams	46.822	43.032
15	Allen	351.688	417.931
16	Bartholomew	122.834	136.491
17	Benton	8.524	9.933
18	Blackford	75.428	42.881
19	Boone	35.496	20.092
20	Brown	7.006	4.004
21	Carroll	50.441	36.855
22	Cass	83.018	55.251
23	Clark	125.753	83.397
24	Clay	12.844	8.154
25	Clinton	29.541	26.674
26	Crawford	.000	.000
27	Daviess	18.215	15.146
28	Dearborn	26.038	14.751
29	Decatur	332.889	190.603
30	DeKalb	376.325	416.130
31	Delaware	219.046	185.471
32	Dubois	17.748	13.839
33	Elkhart	729.530	517.629
34	Fayette	43.786	29.845
35	Floyd	73.093	45.597
36	Fountain	7.006	68.239
37	Franklin	1.168	.707
38	Fulton	99.131	88.718
39	Gibson	15.413	10.497
40	Grant	20.200	27.607
41	Greene	10.859	22.858
42	Hamilton	137.779	117.349
43	Hancock	53.594	31.165
44	Harrison	8.640	8.347
45	Hendricks	23.469	30.390
46	Henry	40.867	55.362
47	Howard	24.403	78.537
48	Huntington	116.879	82.215
49	Jackson	80.683	87.970
50	Jasper	78.815	45.582
51	Jay	110.574	64.564

	State	P41_97	A41_97
52	Jefferson	16.230	10.114
53	Jennings	74.494	47.186
54	Johnson	125.870	96.709
55	Knox	13.661	40.344
56	Kosciusko	167.671	248.387
57	LaGrange	24.870	15.749
58	Lake	295.292	1958.309
59	La Porte	254.775	281.883
60	Lawrence	67.138	187.523
61	Madison	122.834	92.662
62	Marion	1178.715	995.517
63	Marshall	119.681	102.221
64	Martin	1.168	15.879
65	Miami	30.825	17.694
66	Monroe	45.187	25.981
67	Montgomery	74.961	108.120
68	Morgan	37.831	26.530
69	Newton	7.006	18.936
70	Noble	163.350	159.570
71	Ohio	1.168	.659
72	Orange	7.006	4.243
73	Owen	1.518	.905
74	Parke	1.168	1.496
75	Perry	7.006	36.002
76	Pike	7.006	9.076
77	Porter	180.865	799.092
78	Posey	7.006	4.243
79	Pulaski	20.433	26.801
80	Putnam	1.168	.707
81	Randolph	12.961	33.712
82	Ripley	24.520	13.894
83	Rush	7.006	36.078
84	St. Joseph	513.404	442.217
85	Scott	10.275	8.449
86	Shelby	42.852	70.685
87	Spencer	7.006	19.175
88	Starke	.000	.000
89	Steuben	158.330	133.362
90	Sullivan	1.168	.659
91	Switzerland	.000	.000
92	Tippecanoe	71.108	192.558
93	Tipton	14.479	14.133
94	Union	1.168	.659
95	Vanderburgh	224.534	158.482
96	Vermillion	20.433	11.577
97	Vigo	78.231	77.360
98	Wabash	118.514	131.206
99	Warren	14.479	8.224
100	Warrick	27.206	335.341
101	Washington	71.108	41.295
102	Wayne	74.261	123.552

	State	P41_97	A41_97
103	Wells	71.342	57.668
104	White	109.757	67.299
105	Whitley	81.850	98.062
106	Iowa	2080.860	3223.000
107	Kansas	739.950	325.000
108	Kentucky_E	1696.885	1604.000
109	Kentucky_W	1131.924	1069.000
110	Louisiana	1456.902	2569.000
111	Maine	966.935	701.000
112	Maryland	910.939	894.000
113	Massachusetts	5877.603	1428.000
114	Michigan_E	5231.647	3455.000
115	Michigan_W	5231.647	3455.000
116	Minnesota	10119.317	7194.000
117	Mississippi	533.964	318.000
118	Missouri	3780.745	2121.000
119	Montana	166.989	341.000
120	Nebraska	898.939	1103.000
121	Nevada	460.969	673.000
122	New Hampshire	535.964	161.000
123	New Jersey	1954.868	3872.000
124	New Mexico	62.996	621.000
125	New York	5504.629	6325.000
126	North Carolina	2036.863	1930.000
127	North Dakota	242.984	457.000
128	Ohio_N	4824.674	5009.000
129	Ohio_M	4824.674	5009.000
130	Ohio_S	4824.674	5009.000
131	Oklahoma	1451.902	2340.000
132	Oregon	2346.842	4510.000
133	Pennsylvania	12568.152	12018.000
134	Rhode Island	1323.911	1295.000
135	South Carolina	2058.861	2452.000
136	South Dakota	136.991	35.000
137	Tennessee	6480.563	4339.000
138	Texas	7120.519	8099.000
139	Utah	1318.911	2131.000
140	Vermont	32.998	506.000
141	Virginia	3280.779	2863.000
142	Washington	2809.810	4834.000
143	West Virginia	873.941	872.000
144	Wisconsin	4274.712	5466.000
145	Wyoming	110.993	.000

	State	P43_97	A43_97
1	Alabama	2055.852	1476.000
2	Arizona	1114.272	1662.000
3	Arkansas	1596.369	925.000
4	California	15217.415	13697.000
5	Colorado	1191.366	1070.000
6	Connecticut	2055.852	295.000
7	Delaware	461.539	387.000
8	DC	.000	.000
9	Florida	7845.130	7139.000
10	Georgia	4207.301	5289.000
11	Idaho	754.498	331.000
12	Illinois_N	2454.687	2463.000
13	Illinois_S	1051.568	1056.000
14	Adams	2.749	6.754
15	Allen	26.829	120.465
16	Bartholomew	5.793	13.314
17	Benton	.788	.029
18	Blackford	1.162	.177
19	Boone	3.641	.905
20	Brown	1.226	.029
21	Carroll	1.654	.177
22	Cass	3.333	12.014
23	Clark	7.800	18.072
24	Clay	2.176	5.161
25	Clinton	2.789	1.607
26	Crawford	.864	.000
27	Daviess	2.445	.233
28	Dearborn	3.714	.000
29	Decatur	2.026	4.194
30	DeKalb	3.226	3.519
31	Delaware	9.850	12.701
32	Dubois	3.236	8.144
33	Elkhart	14.662	235.251
34	Fayette	2.134	11.060
35	Floyd	5.821	1.575
36	Fountain	1.485	2.212
37	Franklin	1.786	1.106
38	Fulton	1.672	.177
39	Gibson	2.646	.516
40	Grant	6.091	27.546
41	Greene	2.739	3.160
42	Hamilton	13.652	55.047
43	Hancock	4.434	4.265
44	Harrison	2.755	2.212
45	Hendricks	7.998	3.655
46	Henry	4.021	23.057
47	Howard	6.954	51.615
48	Huntington	3.120	9.283
49	Jackson	3.368	10.215
50	Jasper	2.402	.516
51	Jay	1.795	1.106

	State	P43_97	A43_97
52	Jefferson	2.583	7.855
53	Jennings	2.221	114.058
54	Johnson	9.043	6.722
55	Knox	3.274	.029
56	Kosciusko	5.999	25.059
57	LaGrange	2.811	6.696
58	Lake	39.967	23.753
59	La Porte	9.063	5.195
60	Lawrence	3.777	8.144
61	Madison	10.980	26.337
62	Marion	70.401	167.390
63	Marshall	3.668	23.594
64	Martin	.864	.000
65	Miami	2.895	3.160
66	Monroe	9.834	18.412
67	Montgomery	3.077	4.064
68	Morgan	5.347	3.499
69	Newton	1.203	.516
70	Noble	3.691	61.096
71	Ohio	.458	.000
72	Orange	1.579	.000
73	Owen	1.749	17.895
74	Parke	1.404	.000
75	Perry	1.577	17.895
76	Pike	1.057	.000
77	Porter	11.912	3.012
78	Posey	2.226	17.895
79	Pulaski	1.127	.029
80	Putnam	2.892	2.212
81	Randolph	2.265	2.212
82	Ripley	2.150	.029
83	Rush	1.514	3.160
84	St. Joseph	21.748	64.397
85	Scott	1.851	52.372
86	Shelby	3.541	2.416
87	Spencer	1.673	.516
88	Starke	1.965	.867
89	Steuben	2.671	25.720
90	Sullivan	1.773	.516
91	Switzerland	.726	.000
92	Tippecanoe	12.049	35.203
93	Tipton	1.367	1.106
94	Union	.600	.000
95	Vanderburgh	14.145	112.085
96	Vermillion	1.385	.000
97	Vigo	8.781	4.089
98	Wabash	2.878	4.236
99	Warren	.685	.177
100	Warrick	4.212	3.499
101	Washington	2.211	.029
102	Wayne	5.898	3.870

	State	P43_97	A43_97
103	Wells	2.266	4.103
104	White	2.075	8.144
105	Whitley	2.491	3.666
106	Iowa	1775.228	1728.000
107	Kansas	2075.382	1299.000
108	Kentucky_E	630.119	907.000
109	Kentucky_W	420.422	604.000
110	Louisiana	804.866	1328.000
111	Maine	420.422	408.000
112	Maryland	6705.160	5305.000
113	Massachusetts	958.027	953.000
114	Michigan_E	2639.714	2638.000
115	Michigan_W	2639.714	2638.000
116	Minnesota	2924.449	1807.000
117	Missisippi	2124.723	1719.000
118	Missouri	1227.343	2357.000
119	Montana	314.545	337.000
120	Nebraska	1268.461	1171.000
121	Nevada	197.362	2668.000
122	New Hampshire	99.709	303.000
123	New Jersey	2722.976	2770.000
124	New Mexico	1089.601	816.000
125	New York	4793.218	4161.000
126	North Carolina	2857.634	2401.000
127	North Dakota	408.087	296.000
128	Ohio_N	966.250	1077.000
129	Ohio_M	966.250	1077.000
130	Ohio_S	966.250	1077.000
131	Oklahoma	1175.947	1108.000
132	Oregon	2028.098	5067.000
133	Pennsylvania	4836.391	4177.000
134	Rhode Island	629.091	92.000
135	South Carolina	1197.534	1359.000
136	South Dakota	101.765	364.000
137	Tennessee	1689.910	1666.000
138	Texas	8044.548	6881.000
139	Utah	369.025	348.000
140	Vermont	366.970	86.000
141	Virginia	2368.341	3348.000
142	Washington	1601.509	2607.000
143	West Virginia	436.868	1111.000
144	Wisconsin	2453.659	2524.000
145	Wyoming	300.154	175.000

APPENDIX B

COMPUTER PROGRAMS DEVELOPED

Appendix Notes

The project made extensive use of computer programs due to the extremely large amount of data that had to be manipulated. For each of 41 different commodity groups and 22,500 flows (150x150) between places there was really no other way to handle such large amounts of data. In this appendix we have reproduced some of the most important programs that were used. In some cases, such as in handling parcel flows for different companies there were programs written for each of the companies involved. In this latter case we have reproduced only one of the programs here since the others follow the same basic logic.

In many cases programs were not written for some of the operations. In these cases the project made use of different spreadsheet programs or statistical programs. The most common of the former was Microsoft Excel and the most common of the latter was SPSS (Statistical Package for the Social Sciences, version 13.0).

The programs that appear in the following pages are followed by their control information. In some cases the programs are documented in other cases they are not. In order for the reader to understand what the programs were used for, the section below documents this information. For those unfamiliar with computer code, all of the programs are written in FORTRAN 77. The programs will not run in their current form, but must first be run through a FORTRAN compiler.

GRAVITY5.FOR

This is the program that takes productions, attractions, distances, and average shipping distance and uses a fully-constrained gravity model to distribute the flows. None of these data bases are reproduced here except for the productions and attractions which appear in other appendices. All are being supplied to the Indiana DOT.

MODAL05.FOR

This program takes the output of the GRAVITY5 program and distributes this among modes. The latter data appear in the VEH files. The latter files give information on the flows between 145 places noted in the text of this report for all of the modes of interest here: truck, rail, water, air, pipeline and parcel.

US.FOR

This is one of five programs (USPS, UPS, DHL, FedEx and Air Freight) used to

convert the flows into Indiana and out from Indiana into highway flows to appropriate airports. It did this

by taking the parcel flows and assigning these to appropriate carriers based on market share. Air freight flows were treated simply as highway flows to or from airports in Indiana. Parcel flows within Indiana were treated as highway flows.

BIGMAT.FOR

This program took the highway flows of the parcel and airfreight programs and converted these into a 150 x 150 flow matrix. It did this by creating a null (empty) matrix and filling the cells of the 145 x 145 matrix with previous flows and incorporating the five additional origins/destinations to represent the airports of interest.

TOTALLY.FOR

This program took all the highway flows in 1000s of tons and converted these to tons, converted the tons using truck density figures, to truckloads, and totaled these to get the total truck flows between all origins and destinations in the study. The output generated for each commodity as well as for total flows appears in truckloads, tons, and dollars of commodity value.

TRUCKTOT.FOR

This program summed all truckloads resulting from the TOTALLY.FOR program and added these together for annual truckloads and then converted these to daily truckloads.

TOTALRR.FOR

This converted thousands of tons of rail traffic to tons, dollars, and carloads for all commodities.

RAILTOT.FOR

Similar to TRUCKTOT.FOR it converted the total traffic into annual carloads and then converted this to daily carloads assuming a 306 day rail schedule. Multiplying numerical data on maps by 306 will yield annual carloads.

```
      PROGRAM GRAVITY5
      CHARACTER* 15 INFILE
      CHARACTER* 15 OUTFILE
      COMMON DIST(156,156),O(156),A(156),B(156),D(156),
     1 OID(156),DID(156)
      OPEN (6,FILE='CONTROL.CRD',STATUS='OLD')
      NSETS = 31
      DO 1000 KKK=1,NSETS
      READ (6,500) INFILE,OUTFILE,COBS,ISCTG
  500 FORMAT (2A15,F5.0,5X,I5)
      OPEN (7,FILE=OUTFILE,STATUS='NEW')
      OPEN (8,FILE='gmdist.prj', STATUS='OLD')
      OPEN (9,FILE=INFILE,STATUS='OLD')
      N=145
      READ (9,11) (O(I),D(I),I=1,N)
   11 FORMAT (14X,2F11.0)
      DO 100 I = 1,N
      DO 100 J = 1,N
  100 READ (8,*) OID(I),DID(J),DIST(I,J)
      BETA = -1.0/COBS
      FLOWS=0.0
      DO 101 I = 1,N
  101 FLOWS=FLOWS+O(I)
      DO 102 I= 1,N
      O(I) = O(I)/FLOWS
  102 D(I) = D(I)/FLOWS
      CALL ENT5 (N,BETA,COBS,FLOWS)
      CALL OUT (N,BETA,COBS,FLOWS)
      CLOSE (7)
      CLOSE (8)
      CLOSE (9)
 1000 CONTINUE
      STOP
      END

      SUBROUTINE OUT(N,BETA,COBS,FLOWS)
      COMMON DIST(156,156),O(156),A(156),B(156),D(156),
     1OID(156),DID(156)
      DIMENSION X(156)
      DIMENSION ITEMP (156)
      WRITE(7,101) BETA
  101 FORMAT(' ',' BETA = ',F8.4/' CELL       ORIGIN FLOWS
      VALUE     VALUE          DESTINATION FLOWS')
```

```
      DO 10 I = 1,N
      XX = O(I) * FLOWS
      Y = D(I) * FLOWS
   10 CONTINUE
   10 WRITE(7,*) I,XX,A(I),B(I),Y
  102 FORMAT(I3,F15.0,2F40.3,F15.0)
      WRITE(7,103)
  103 FORMAT(' ',' FLOW MATRIX')
      XMEAN = 0.0
      DO 30 I = 1,N
      X(I)=FLOWS*O(I)*A(I)
   30 CONTINUE
      DO 31 I = 1,N
      DO 20 J = 1,N
      W = X(I)*B(J)*D(J)*EXP(BETA*DIST(I,J))
      XMEAN = XMEAN+W*DIST(I,J)
   20 ITEMP(J) =IFIX(W+0.5)
      DO 25 J = 1,N
   25 WRITE(7,*) I,J,ITEMP(J),DIST(I,J)
   30 WRITE(*,104) I,(ITEMP(J), J=1,N)
   31 CONTINUE
  104 FORMAT(' ',' FROM CELL',I6/(8I9))
      XMEAN = XMEAN/FLOWS
      WRITE(7,105) COBS,XMEAN
  105 FORMAT(' ',' OBSERVED MEAN SHIPMENT COST',F10.5/' MODEL
     1MEAN SHIPMENT COST',F13.5)
      RETURN
      END

      SUBROUTINE ENT5(N,BETA,COBS,FLOWS)
      COMMON DIST(156,156),O(156),A(156),B(156),D(156),
     1OID(156),DID(156)
      DO 10 I = 1,N
   10 B(I) = 1.0
      DO 110 KK = 1,50
      DO 70 K = 1,50
      SUMA = 0.0
      SUMB = 0.0
      DO 30 I =1,N
      A(I) = 0.0
      DO 20 J =1,N
```

```
 20 A(I) = A(I) + B(J) *D(J) * EXP(BETA*DIST(I,J))
    A(I) = 1.0/A(I)
 30 SUMA = SUMA + A(I)
    DO 50 J = 1,N
    B(J) = 0.0
    DO 40 I = 1,N
 40 B(J) = B(J) + O(I) * A(I) * EXP(BETA*DIST(I,J))
    B(J) = 1.0/B(J)
 50 SUMB = SUMB + B(J)
    W = SQRT(SUMB/SUMA)
    DO 60 I = 1,N
    A(I) = A(I) * W
 60 B(I) = B(I) / W
    IF (ABS(W-1.0) .LT. 0.0001) GO TO 80
 70 CONTINUE
 80 C = 0.0
    DO 90 I = 1,N
    DO 90 J = 1,N
 90 C = C+O(I)*A(I)*B(J)*D(J)*EXP(BETA*DIST(I,J))*DIST(I,J)
    IF (KK .EQ. 1) GO TO 100
    W = C-CT
    IF (ABS(W) .LT. COBS * 0.0001) GO TO 120
    W = ((COBS-CT) * BETA-(COBS-C)*BT)/W
    CT = C
    BT = BETA
    BETA = W
    GO TO 110
100 BT = BETA
    CT = C
    BETA = C/COBS*BETA
110 CONTINUE
120 RETURN
    END
```

COM_1	FUNNY_1	253	0.00	1
COM_2	FUNNY_2	410	0.00	2
COM_3	FUNNY_3	400	0.00	3
COM_4	FUNNY_4	213	0.00	4
COM_5	FUNNY_5	458	0.00	5
COM_6	FUNNY_6	472	0.00	6
COM_7	FUNNY_7	313	0.00	7
COM_8	FUNNY_8	343	0.00	8
COM_9	FUNNY_9	245	0.00	9
COM_10	FUNNY_10	200	0.00	10
COM_11	FUNNY_11	100	0.00	11
COM_12	FUNNY_12	100	0.00	12
COM_13	FUNNY_13	222	0.00	13
COM_14	FUNNY_14	526	0.00	14
COM_15	FUNNY_15	446	0.00	15
COM_17	FUNNY_17	142	0.00	17
COM_18	FUNNY_18	106	0.00	18
COM_19	FUNNY_19	172	0.00	19
COM_20	FUNNY_20	462	0.00	20
COM_21	FUNNY_21	564	0.00	21
COM_22	FUNNY_22	243	0.00	22
COM_23	FUNNY_23	489	0.00	23
COM_24	FUNNY_24	530	0.00	24
COM_25	FUNNY_25	150	0.00	25
COM_26	FUNNY_26	294	0.00	26
COM_27	FUNNY_27	549	0.00	27
COM_28	FUNNY_28	299	0.00	28
COM_29	FUNNY_29	292	0.00	29
COM_30	FUNNY_30	538	0.00	30
COM_31	FUNNY_31	100	0.00	31
COM_32	FUNNY_32	350	0.00	32
COM_33	FUNNY_33	457	0.00	33
COM_34	FUNNY_34	542	0.00	34
COM_35	FUNNY_35	683	0.00	35
COM_36	FUNNY_36	464	0.00	36
COM_37	FUNNY_37	686	0.00	37
COM_38	FUNNY_38	738	0.00	38
COM_39	FUNNY_39	581	0.00	39
COM_40	FUNNY_40	354	0.00	40
COM_41	FUNNY_41	225	0.00	41
COM_43	FUNNY_43	156	0.00	43

```
      PROGRAM MODAL05
      DIMENSION A(54)
      CHARACTER * 15 MODCHOIC
      CHARACTER * 15 FLOWS
      CHARACTER * 15 OUTFILE
      INTEGER O,D,FLOW
      REAL TRUCK,RAIL,WATER,AIR, PIPELINE, PARCEL, TOTAL
      OPEN (5,FILE='CONTROL.ONE',STATUS='OLD')
      DO 500 KKK=1,41
      READ (5,501) MODCHOIC,FLOWS,OUTFILE
  501 FORMAT (3A15)
      OPEN(6,FILE=MODCHOIC,STATUS='OLD')
      OPEN(7,FILE=FLOWS,STATUS='OLD')
      OPEN(8,FILE=OUTFILE,STATUS='NEW')
      WRITE (*,5002) KKK
 5002 FORMAT('  DATASET',I2)
      WRITE (*,5001)
 5001 FORMAT ('    O    D  TONS DIST TRUCK RAIL WATER AIR PARCEL
TOTAL')
      DO 1000 I = 1,54
 1000 READ (6,*) A(I)
      CLOSE (6)
 6000 READ (7,502,END=9000)O,D,FLOW,DIST
  502 FORMAT (10X,I3,I12,I12,F12.0)
      IF (FLOW .EQ. 0) GO TO 307
      IF (DIST .LE. 50) GO TO 199
      IF (DIST .LE. 99) GO TO 200
      IF (DIST .LE. 249) GO TO 201
      IF (DIST .LE. 499) GO TO 202
      IF (DIST .LE. 749) GO TO 203
      IF (DIST .LE. 999) GO TO 204
      IF (DIST .LE. 1499) GO TO 205
      IF (DIST .LE. 1999) GO TO 206
      IF (DIST .GE. 2000) GO TO 207
  199 TRUCK = A(1) * FLOW
      RAIL = A(2) * FLOW
      WATER = A(3) * FLOW
      AIR = A(4) * FLOW
      PIPELINE = A(5) * FLOW
      PARCEL = A(6) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
```

```
      GO TO 299
  200 TRUCK = A(7) * FLOW
      RAIL = A(8) * FLOW
      WATER = A(9) * FLOW
      AIR = A(10) * FLOW
      PIPELINE = A(11) * FLOW
      PARCEL = A(12) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  201 TRUCK = A(13) * FLOW
      RAIL = A(14) * FLOW
      WATER = A(15) * FLOW
      AIR = A(16) * FLOW
      PIPELINE = A(17) * FLOW
      PARCEL = A(18) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  202 TRUCK = A(19) * FLOW
      RAIL = A(20) * FLOW
      WATER = A(21) * FLOW
      AIR = A(22) * FLOW
      PIPELINE = A(23) * FLOW
      PARCEL = A(24) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  203 TRUCK = A(25) * FLOW
      RAIL = A(26) * FLOW
      WATER = A(27) * FLOW
      AIR = A(28) * FLOW
      PIPELINE = A(29) * FLOW
      PARCEL = A(30) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  204 TRUCK = A(31) * FLOW
      RAIL = A(32) * FLOW
      WATER = A(33) * FLOW
      AIR = A(34) * FLOW
      PIPELINE = A(35) * FLOW
      PARCEL = A(36) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
```

```
  205 TRUCK = A(37) * FLOW
      RAIL = A(38) * FLOW
      WATER = A(39) * FLOW
      AIR = A(40) * FLOW
      PIPELINE = A(41) * FLOW
      PARCEL = A(42) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  206 TRUCK = A(43) * FLOW
      RAIL = A(44) * FLOW
      WATER = A(45) * FLOW
      AIR = A(46) * FLOW
      PIPELINE = A(47) * FLOW
      PARCEL = A(48) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  207 TRUCK = A(49) * FLOW
      RAIL = A(50) * FLOW
      WATER = A(51) * FLOW
      AIR = A(52) * FLOW
      PIPELINE = A(53) * FLOW
      PARCEL = A(54) * FLOW
      TOTAL = TRUCK+RAIL+WATER+AIR+PIPELINE+PARCEL
      GO TO 299
  307 TRUCK = 0
      RAIL = 0
      WATER = 0
      AIR = 0
      PARCEL = 0
      PIPELINE = 0
      TOTAL = 0
  299 WRITE (8,300)
O,D,FLOW,DIST,TRUCK,RAIL,WATER,AIR,PIPELINE,PARCEL
     1,TOTAL
  300 FORMAT (2I4,I10,F5.0,7F10.0)
 3000 GO TO 6000
 9000 CLOSE (7)
      CLOSE (8)
  500 CONTINUE
      CLOSE (5)
      CALL EXIT
      END
```

MODE_1	FUNNY_1	VEH01
MODE_2	FUNNY_2	VEH02
MODE_3	FUNNY_3	VEH03
MODE_4	FUNNY_4	VEH04
MODE_5	FUNNY_5	VEH05
MODE_6	FUNNY_6	VEH06
MODE_7	FUNNY_7	VEH07
MODE_8	FUNNY_8	VEH08
MODE_9	FUNNY_9	VEH09
MODE_10	FUNNY_10	VEH10
MODE_11	FUNNY_11	VEH11
MODE_12	FUNNY_12	VEH12
MODE_13	FUNNY_13	VEH13
MODE_14	FUNNY_14	VEH14
MODE_15	FUNNY_15	VEH15
MODE_17	FUNNY_17	VEH17
MODE_18	FUNNY_18	VEH18
MODE_19	FUNNY_19	VEH19
MODE_20	FUNNY_20	VEH20
MODE_21	FUNNY_21	VEH21
MODE_22	FUNNY_22	VEH22
MODE_23	FUNNY_23	VEH23
MODE_24	FUNNY_24	VEH24
MODE_25	FUNNY_25	VEH25
MODE_26	FUNNY_26	VEH26
MODE_27	FUNNY_27	VEH27
MODE_28	FUNNY_28	VEH28
MODE_29	FUNNY_29	VEH29
MODE_30	FUNNY_30	VEH30
MODE_31	FUNNY_31	VEH31
MODE_32	FUNNY_32	VEH32
MODE_33	FUNNY_33	VEH33
MODE_34	FUNNY_34	VEH34
MODE_35	FUNNY_35	VEH35
MODE_36	FUNNY_36	VEH36
MODE_37	FUNNY_37	VEH37
MODE_38	FUNNY_38	VEH38
MODE_39	FUNNY_39	VEH39
MODE_40	FUNNY_40	VEH40
MODE_41	FUNNY_41	VEH41
MODE_43	FUNNY_43	VEH43

```
      PROGRAM US
      INTEGER O,D
      CHARACTER * 15 INFILE
      CHARACTER * 15 OUTFILE
      CHARACTER * 15 FINAL
      OPEN(1,FILE='CONTROL.1',STATUS='OLD')
      DO 50 KKK=1,41
      WRITE (*,*)KKK
      READ(1,100) (INFILE,OUTFILE,FINAL)
  100 FORMAT (3A15)
      OPEN(2,FILE=INFILE,STATUS='OLD')
      OPEN(3,FILE=OUTFILE,STATUS='NEW')
      OPEN(4,FILE=FINAL,STATUS='NEW')
 6000 READ(2,200,END=9000)O,D,PARCEL
      USPS = .13*PARCEL
  200 FORMAT(2I4,59X,F10.0)
      IF(USPS.EQ.0) GO TO 1000
      IF(D.LE.13) GO TO 1000
      IF(D.GE.106) GO TO 1000
      IF(D.EQ.58) GO TO 10
      IF(D.EQ.77) GO TO 10
      IF(D.EQ.59) GO TO 10
      IF(D.EQ.84) GO TO 10
      IF(D.EQ.33) GO TO 10
      IF(D.EQ.88) GO TO 10
      IF(D.EQ.63) GO TO 10
      IF(D.EQ.56) GO TO 10
      IF(D.EQ.26) GO TO 20
      IF(D.EQ.23) GO TO 20
      IF(D.EQ.35) GO TO 20
      IF(D.EQ.44) GO TO 20
      IF(D.EQ.101) GO TO 20
      IF(D.EQ.85) GO TO 20
      IF(D.EQ.37) GO TO 30
      IF(D.EQ.28) GO TO 30
      IF(D.EQ.82) GO TO 30
      IF(D.EQ.71) GO TO 30
      IF(D.EQ.91) GO TO 30
C     USPS PARCELS HAVE ORIGIN AT INDIANAPOLIS
      O = 150
      GO TO 1000
```

```
C     USPS PARCELS HAVE ORIGIN AT CHICAGO
   10 O = 146
      GO TO 1000
C     USPS PARCELS HAVE ORIGIN AT LOUISVILLE
   20 O = 147
      GO TO 1000
C     USPS PARCELS HAVE ORIGIN AT CINCINNATI
   30 O = 148
 1000 WRITE(3,300)O,D,USPS
      GO TO 6000
 9000 CLOSE (2)
      CLOSE (3)
      OPEN(3,FILE=OUTFILE,STATUS='OLD')
 7000 READ(3,300,END=9001)O,D,USPS
      IF(USPS.EQ.0) GO TO 1001
      IF(O.GE.146)GO TO 1001
      IF(O.LE.13) GO TO 1001
      IF(O.GE.106) GO TO 1001
      IF(O.EQ.58) GO TO 11
      IF(O.EQ.77) GO TO 11
      IF(O.EQ.59) GO TO 11
      IF(O.EQ.84) GO TO 11
      IF(O.EQ.33) GO TO 11
      IF(O.EQ.88) GO TO 11
      IF(O.EQ.63) GO TO 11
      IF(O.EQ.56) GO TO 11
      IF(O.EQ.26) GO TO 21
      IF(O.EQ.23) GO TO 21
      IF(O.EQ.35) GO TO 21
      IF(O.EQ.44) GO TO 21
      IF(O.EQ.101) GO TO 21
      IF(O.EQ.85) GO TO 21
      IF(O.EQ.37) GO TO 31
      IF(O.EQ.28) GO TO 31
      IF(O.EQ.82) GO TO 31
      IF(O.EQ.71) GO TO 31
      IF(O.EQ.91) GO TO 31
C     USPS PARCELS HAVE DESTINATION AT INDIANAPOLIS
      D = 150
      GO TO 1001
C     USPS PARCELS HAVE DESTINATION AT CHICAGO
```

```
   11 D = 146
      GO TO 1001
C     USPS PARCELS HAVE DESTINATION AT LOUISVILLE
   21 D = 147
      GO TO 1001
C     USPS PARCELS HAVE DESTINATION AT CINCINNATI
   31 D = 148
 1001 IF(USPS.LE.(.1)) GO TO 1002
      USPS = USPS + 1.0
 1002 WRITE(4,300)O,D,USPS
  300 FORMAT(2I4,F10.0)
      GO TO 7000
 9001 CLOSE (3)
      CLOSE (4)
   50 CONTINUE
      CALL EXIT
      END
```

VEH01	US01	USPS01
VEH02	US02	USPS02
VEH03	US03	USPS03
VEH04	US04	USPS04
VEH05	US05	USPS05
VEH06	US06	USPS06
VEH07	US07	USPS07
VEH08	US08	USPS08
VEH09	US09	USPS09
VEH10	US10	USPS10
VEH11	US11	USPS11
VEH12	US12	USPS12
VEH13	US13	USPS13
VEH14	US14	USPS14
VEH15	US15	USPS15
VEH17	US17	USPS17
VEH18	US18	USPS18
VEH19	US19	USPS19
VEH20	US20	USPS20
VEH21	US21	USPS21
VEH22	US22	USPS22
VEH23	US23	USPS23
VEH24	US24	USPS24
VEH25	US25	USPS25
VEH26	US26	USPS26
VEH27	US27	USPS27
VEH28	US28	USPS28
VEH29	US29	USPS29
VEH30	US30	USPS30
VEH31	US31	USPS31
VEH32	US32	USPS32
VEH33	US33	USPS33
VEH34	US34	USPS34
VEH35	US35	USPS35
VEH36	US36	USPS36
VEH37	US37	USPS37
VEH38	US38	USPS38
VEH39	US39	USPS39
VEH40	US40	USPS40
VEH41	US41	USPS41
VEH43	US43	USPS43

```
      PROGRAM BIGMAT
C
C     THIS PROGRAM WAS WRITTEN TO TAKE A 145X145 MATRIX AND PLACE
C     ITS ELEMENTS IN A NEW MATRIX THAT IS 150X150. IT DOES THIS
C     BY CREATING A 150X150 NULL MATRIX AND THEN ENTERING THE
C     145X145
C     ELEMENTS INTO THE 150X150 MATRIX.
C
      DIMENSION X(150,150), AA(150,150)
      INTEGER O(150),D(150),A,B
      CHARACTER * 15 FLOWS
      CHARACTER * 15 FINAL
C
C     THE CONTROL CARD (CONTROL.150) HAS THE NUMBER OF ROWS OR
C     COLUMNS IN THE NEW MATRIX, THE NUMBER OF MATRICES TO BE
C     CREATED AND THE TOTAL CELLS IN THE ORIGINAL MATRIX ON THE
C     FIRST LINE.
C     BEGINNING WITH THE SECOND LINE LIST THE NAMES OF THE
C     145X145 MATRICES TO BE USED FOLLOWED BY THE NAME OF THE NEW
C     150X150 MATRICES TO BE CREATED.
C
      OPEN (6,FILE='CONTROL.MORE',STATUS='OLD')
      READ (6,*) N,NN,NNN
      DO 2000 LL = 1,NN
      READ (6,3000)FLOWS,FINAL
 3000 FORMAT (2A15)
      OPEN (7,FILE=FLOWS,STATUS='OLD')
      OPEN (8,FILE=FINAL,STATUS='NEW')
      IF (LL.GT. 1) GO TO 15
C     CREATE NULL MATRX
      OPEN (5,FILE='NEWMAT',STATUS='NEW')
      DO 10 I=1,N
      DO 10 J=1,N
      F=0
   10 WRITE (5,*) I,J,F
      CLOSE (5)
   15 OPEN(9,FILE='NEWMAT',STATUS='OLD')
      DO 50 I=1,N
      DO 50 J=1,N
   50 READ(9,*)O(I),D(J),X(I,J)
      DO 90 KKK=1,NNN
```

```
      READ (7,*)A,B,C
      DO 60 I=1,N
      DO 60 J=1,N
      IF(O(I).EQ.A.AND.D(J).EQ.B)GO TO 55
      AA(I,J) =X(I,J)
      GO TO 60
   55 AA(I,J)=X(I,J) + C
      X(I,J) = X(I,J) + C
      GO TO 90
   60 CONTINUE
   90 CONTINUE
      CLOSE (9)
      CLOSE (7)
      DO 80 I=1,N
      DO 80 J=1,N
   80 WRITE (8,1000)O(I),D(J),AA(I,J)
      CLOSE(8)
      CLOSE(9)
      WRITE(*,*)FINAL
 1000 FORMAT (2I5,F12.3)
 2000 CONTINUE
      END
```

```
 150         82     21025
TRUCK1501    TRUCK1501.1
TRUCK1502    TRUCK1502.1
TRUCK1503    TRUCK1503.1
TRUCK1504    TRUCK1504.1
TRUCK1505    TRUCK1505.1
TRUCK1506    TRUCK1506.1
TRUCK1507    TRUCK1507.1
TRUCK1508    TRUCK1508.1
TRUCK1509    TRUCK1509.1
TRUCK1510    TRUCK1510.1
TRUCK1511    TRUCK1511.1
TRUCK1512    TRUCK1512.1
TRUCK1513    TRUCK1513.1
TRUCK1514    TRUCK1514.1
TRUCK1515    TRUCK1515.1
TRUCK1517    TRUCK1517.1
TRUCK1518    TRUCK1518.1
TRUCK1519    TRUCK1519.1
TRUCK1520    TRUCK1520.1
TRUCK1521    TRUCK1521.1
TRUCK1522    TRUCK1522.1
TRUCK1523    TRUCK1523.1
TRUCK1524    TRUCK1524.1
TRUCK1525    TRUCK1525.1
TRUCK1526    TRUCK1526.1
TRUCK1527    TRUCK1527.1
TRUCK1528    TRUCK1528.1
TRUCK1529    TRUCK1529.1
TRUCK1530    TRUCK1530.1
TRUCK1531    TRUCK1531.1
TRUCK1532    TRUCK1532.1
TRUCK1533    TRUCK1533.1
TRUCK1534    TRUCK1534.1
TRUCK1535    TRUCK1535.1
TRUCK1536    TRUCK1536.1
TRUCK1537    TRUCK1537.1
TRUCK1538    TRUCK1538.1
TRUCK1539    TRUCK1539.1
TRUCK1540    TRUCK1540.1
TRUCK1541    TRUCK1541.1
```

TRUCK1543	TRUCK1543.1
TRUCK3001	TRUCK3001.1
TRUCK3002	TRUCK3002.1
TRUCK3003	TRUCK3003.1
TRUCK3004	TRUCK3004.1
TRUCK3005	TRUCK3005.1
TRUCK3006	TRUCK3006.1
TRUCK3007	TRUCK3007.1
TRUCK3008	TRUCK3008.1
TRUCK3009	TRUCK3009.1
TRUCK3010	TRUCK3010.1
TRUCK3011	TRUCK3011.1
TRUCK3012	TRUCK3012.1
TRUCK3013	TRUCK3013.1
TRUCK3014	TRUCK3014.1
TRUCK3015	TRUCK3015.1
TRUCK3017	TRUCK3017.1
TRUCK3018	TRUCK3018.1
TRUCK3019	TRUCK3019.1
TRUCK3020	TRUCK3020.1
TRUCK3021	TRUCK3021.1
TRUCK3022	TRUCK3022.1
TRUCK3023	TRUCK3023.1
TRUCK3024	TRUCK3024.1
TRUCK3025	TRUCK3025.1
TRUCK3026	TRUCK3026.1
TRUCK3027	TRUCK3027.1
TRUCK3028	TRUCK3028.1
TRUCK3029	TRUCK3029.1
TRUCK3030	TRUCK3030.1
TRUCK3031	TRUCK3031.1
TRUCK3032	TRUCK3032.1
TRUCK3033	TRUCK3033.1
TRUCK3034	TRUCK3034.1
TRUCK3035	TRUCK3035.1
TRUCK3036	TRUCK3036.1
TRUCK3037	TRUCK3037.1
TRUCK3038	TRUCK3038.1
TRUCK3039	TRUCK3039.1
TRUCK3040	TRUCK3040.1
TRUCK3041	TRUCK3041.1
TRUCK3043	TRUCK3043.1

```
      PROGRAM TOTALLY
      DIMENSION F(150,150),V(150,150),T(150,150),TOT(150,150)
      DIMENSION DOL(150,150),TON(150,150)
      INTEGER NUM(150)
      CHARACTER * 15 TRUCK
      CHARACTER * 15 DHL
      CHARACTER * 15 FEDEX
      CHARACTER * 15 UPS
      CHARACTER * 15 USPS
      CHARACTER * 15 AIR
      CHARACTER * 15 TOTAL
      OPEN (3,FILE='ROADNODE.TXT',STATUS='OLD')
      OPEN (4,FILE='CONTROLLER',STATUS='OLD')
      OPEN (5,FILE='DEN_VALUE.T',STATUS='OLD')
      N=150
      DO 80 I =1,N
   80 READ (3,1000) NUM(I)
      DO 90 LL=1,123
      DO 95 I=1,N
      DO 95 J=1,N
      V(I,J) =0.0
      T(I,J) =0.0
   95 F(I,J) =0.0
      READ (4,2000) TOTAL,AIR,UPS,USPS,FEDEX,DHL,TRUCK
      READ (5,3000)DENSITY,DOLLARS
      OPEN (7,FILE=TOTAL,STATUS='NEW')
      OPEN (6,FILE=AIR,STATUS='OLD')
      DO 5 I=1,N
      DO 5 J=1,N
      TOT(I,J) =0.0
      DOL(I,J) =0.0
    5 TON(I,J) =0.0
      DO 10 I=1,N
      DO 10 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      T(I,J) = (F(I,J)/DENSITY)
      IF(T(I,J) .EQ. 0.0) GO TO 11
      T(I,J) = T(I,J)+ .5
   11 TOT(I,J) = TOT(I,J) + T(I,J)
```

```
      DOL(I,J) = DOL(I,J) + V(I,J)
   10 TON(I,J) = TON(I,J) + F(I,J)
      CLOSE(6)
      OPEN (6, FILE=UPS, STATUS='OLD')
      DO 20 I=1,N
      DO 20 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      T(I,J) = (F(I,J)/DENSITY)
      IF(T(I,J) .EQ. 0.0) GO TO 21
      T(I,J) = T(I,J) + .5
   21 TOT(I,J) = TOT(I,J) + T(I,J)
      DOL(I,J) = DOL(I,J) + V(I,J)
   20 TON(I,J) = TON(I,J) + F(I,J)
      CLOSE(6)
      OPEN (6, FILE=USPS, STATUS='OLD')
      DO 30 I=1,N
      DO 30 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      T(I,J) = (F(I,J)/DENSITY)
      IF(T(I,J) .EQ. 0.0) GO TO 31
      T(I,J) = T(I,J) + .5
   31 TOT(I,J) = TOT(I,J) + T(I,J)
      DOL(I,J) = DOL(I,J) + V(I,J)
   30 TON(I,J) = TON(I,J) + F(I,J)
      CLOSE(6)
      OPEN (6, FILE=FEDEX, STATUS='OLD')
      DO 40 I=1,N
      DO 40 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      T(I,J) = (F(I,J)/DENSITY)
      IF (T(I,J) .EQ. 0.0) GO TO 41
      T(I,J) = T(I,J) + .5
   41 TOT(I,J) = TOT(I,J) + T(I,J)
      DOL(I,J) = DOL(I,J) + V(I,J)
   40 TON(I,J) = TON(I,J) + F(I,J)
```

```
      CLOSE (6)
      OPEN (6, FILE=DHL, STATUS='OLD')
      DO 50 I=1,N
      DO 50 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      T(I,J) = (F(I,J)/DENSITY)
      IF(T(I,J) .EQ. 0.0) GO TO 51
      T(I,J) =T(I,J) + .5
   51 TOT(I,J) = TOT(I,J) + T(I,J)
      DOL(I,J) = DOL(I,J) + V(I,J)
   50 TON(I,J) = TON(I,J) + F(I,J)
      CLOSE(6)
      OPEN (6, FILE=TRUCK, STATUS='OLD')
      DO 60 I=1,N
      DO 60 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      T(I,J) = (F(I,J)/DENSITY)
      IF (T(I,J) .EQ. 0.0) GO TO 61
      T(I,J) = T(I,J) + .5
   61 TOT(I,J) = TOT(I,J) + T(I,J)
      DOL(I,J) = DOL(I,J) + V(I,J)
   60 TON(I,J) = TON(I,J) + F(I,J)
      CLOSE(6)
      DO 70 I=1,N
      DO 70 J=1,N
      WRITE (7,5000)NUM(I),NUM(J),TOT(I,J),DOL(I,J),TON (I,J)
   70 CONTINUE
 1000 FORMAT (I6)
 2000 FORMAT (7A15)
 3000 FORMAT (2X,F8.0,F11.0)
 4000 FORMAT (10X,F12.0)
 5000 FORMAT (2I8,3F15.0)
      WRITE (*,*)LL
   90 CONTINUE
      CLOSE (7)
      CALL EXIT
      END
```

TOTAL9701.1	AIRF9701.1	UPS9701.1	USPS9701.1
FEDEX9701.1	DHL9701.1	TRUCK9701.1	
TOTAL9702.1	AIRF9702.1	UPS9702.1	USPS9702.1
FEDEX9702.1	DHL9702.1	TRUCK9702.1	
TOTAL9703.1	AIRF9703.1	UPS9703.1	USPS9703.1
FEDEX9703.1	DHL9703.1	TRUCK9703.1	
TOTAL9704.1	AIRF9704.1	UPS9704.1	USPS9704.1
FEDEX9704.1	DHL9704.1	TRUCK9704.1	
TOTAL9705.1	AIRF9705.1	UPS9705.1	USPS9705.1
FEDEX9705.1	DHL9705.1	TRUCK9705.1	
TOTAL9706.1	AIRF9706.1	UPS9706.1	USPS9706.1
FEDEX9706.1	DHL9706.1	TRUCK9706.1	
TOTAL9707.1	AIRF9707.1	UPS9707.1	USPS9707.1
FEDEX9707.1	DHL9707.1	TRUCK9707.1	
TOTAL9708.1	AIRF9708.1	UPS9708.1	USPS9708.1
FEDEX9708.1	DHL9708.1	TRUCK9708.1	
TOTAL9709.1	AIRF9709.1	UPS9709.1	USPS9709.1
FEDEX9709.1	DHL9709.1	TRUCK9709.1	
TOTAL9710.1	AIRF9710.1	UPS9710.1	USPS9710.1
FEDEX9710.1	DHL9710.1	TRUCK9710.1	
TOTAL9711.1	AIRF9711.1	UPS9711.1	USPS9711.1
FEDEX9711.1	DHL9711.1	TRUCK9711.1	
TOTAL9712.1	AIRF9712.1	UPS9712.1	USPS9712.1
FEDEX9712.1	DHL9712.1	TRUCK9712.1	
TOTAL9713.1	AIRF9713.1	UPS9713.1	USPS9713.1
FEDEX9713.1	DHL9713.1	TRUCK9713.1	
TOTAL9714.1	AIRF9714.1	UPS9714.1	USPS9714.1
FEDEX9714.1	DHL9714.1	TRUCK9714.1	
TOTAL9715.1	AIRF9715.1	UPS9715.1	USPS9715.1
FEDEX9715.1	DHL9715.1	TRUCK9715.1	
TOTAL9717.1	AIRF9717.1	UPS9717.1	USPS9717.1
FEDEX9717.1	DHL9717.1	TRUCK9717.1	
TOTAL9718.1	AIRF9718.1	UPS9718.1	USPS9718.1
FEDEX9718.1	DHL9718.1	TRUCK9718.1	
TOTAL9719.1	AIRF9719.1	UPS9719.1	USPS9719.1
FEDEX9719.1	DHL9719.1	TRUCK9719.1	
TOTAL9720.1	AIRF9720.1	UPS9720.1	USPS9720.1
FEDEX9720.1	DHL9720.1	TRUCK9720.1	
TOTAL9721.1	AIRF9721.1	UPS9721.1	USPS9721.1
FEDEX9721.1	DHL9721.1	TRUCK9721.1	
TOTAL9722.1	AIRF9722.1	UPS9722.1	USPS9722.1

```
FEDEX9722.1      DHL9722.1        TRUCK9722.1
TOTAL9723.1    AIRF9723.1     UPS9723.1      USPS9723.1
FEDEX9723.1      DHL9723.1        TRUCK9723.1
TOTAL9724.1    AIRF9724.1     UPS9724.1      USPS9724.1
FEDEX9724.1      DHL9724.1        TRUCK9724.1
TOTAL9725.1    AIRF9725.1     UPS9725.1      USPS9725.1
FEDEX9725.1      DHL9725.1        TRUCK9725.1
TOTAL9726.1    AIRF9726.1     UPS9726.1      USPS9726.1
FEDEX9726.1      DHL9726.1        TRUCK9726.1
TOTAL9727.1    AIRF9727.1     UPS9727.1      USPS9727.1
FEDEX9727.1      DHL9727.1        TRUCK9727.1
TOTAL9728.1    AIRF9728.1     UPS9728.1      USPS9728.1
FEDEX9728.1      DHL9728.1        TRUCK9728.1
TOTAL9729.1    AIRF9729.1     UPS9729.1      USPS9729.1
FEDEX9729.1      DHL9729.1        TRUCK9729.1
TOTAL9730.1    AIRF9730.1     UPS9730.1      USPS9730.1
FEDEX9730.1      DHL9730.1        TRUCK9730.1
TOTAL9731.1    AIRF9731.1     UPS9731.1      USPS9731.1
FEDEX9731.1      DHL9731.1        TRUCK9731.1
TOTAL9732.1    AIRF9732.1     UPS9732.1      USPS9732.1
FEDEX9732.1      DHL9732.1        TRUCK9732.1
TOTAL9733.1    AIRF9733.1     UPS9733.1      USPS9733.1
FEDEX9733.1      DHL9733.1        TRUCK9733.1
TOTAL9734.1    AIRF9734.1     UPS9734.1      USPS9734.1
FEDEX9734.1      DHL9734.1        TRUCK9734.1
TOTAL9735.1    AIRF9735.1     UPS9735.1      USPS9735.1
FEDEX9735.1      DHL9735.1        TRUCK9735.1
TOTAL9736.1    AIRF9736.1     UPS9736.1      USPS9736.1
FEDEX9736.1      DHL9736.1        TRUCK9736.1
TOTAL9737.1    AIRF9737.1     UPS9737.1      USPS9737.1
FEDEX9737.1      DHL9737.1        TRUCK9737.1
TOTAL9738.1    AIRF9738.1     UPS9738.1      USPS9738.1
FEDEX9738.1      DHL9738.1        TRUCK9738.1
TOTAL9739.1    AIRF9739.1     UPS9739.1      USPS9739.1
FEDEX9739.1      DHL9739.1        TRUCK9739.1
TOTAL9740.1    AIRF9740.1     UPS9740.1      USPS9740.1
FEDEX9740.1      DHL9740.1        TRUCK9740.1
TOTAL9741.1    AIRF9741.1     UPS9741.1      USPS9741.1
FEDEX9741.1      DHL9741.1        TRUCK9741.1
TOTAL9743.1    AIRF9743.1     UPS9743.1      USPS9743.1
FEDEX9743.1      DHL9743.1        TRUCK9743.1
TOTAL1501.1    AIRF1501.1     UPS1501.1      USPS1501.1
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FEDEX1501.1      DHL1501.1       TRUCK1501.1
TOTAL1502.1    AIRF1502.1     UPS1502.1      USPS1502.1
FEDEX1502.1      DHL1502.1       TRUCK1502.1
TOTAL1503.1    AIRF1503.1     UPS1503.1      USPS1503.1
FEDEX1503.1      DHL1503.1       TRUCK1503.1
TOTAL1504.1    AIRF1504.1     UPS1504.1      USPS1504.1
FEDEX1504.1      DHL1504.1       TRUCK1504.1
TOTAL1505.1    AIRF1505.1     UPS1505.1      USPS1505.1
FEDEX1505.1      DHL1505.1       TRUCK1505.1
TOTAL1506.1    AIRF1506.1     UPS1506.1      USPS1506.1
FEDEX1506.1      DHL1506.1       TRUCK1506.1
TOTAL1507.1    AIRF1507.1     UPS1507.1      USPS1507.1
FEDEX1507.1      DHL1507.1       TRUCK1507.1
TOTAL1508.1    AIRF1508.1     UPS1508.1      USPS1508.1
FEDEX1508.1      DHL1508.1       TRUCK1508.1
TOTAL1509.1    AIRF1509.1     UPS1509.1      USPS1509.1
FEDEX1509.1      DHL1509.1       TRUCK1509.1
TOTAL1510.1    AIRF1510.1     UPS1510.1      USPS1510.1
FEDEX1510.1      DHL1510.1       TRUCK1510.1
TOTAL1511.1    AIRF1511.1     UPS1511.1      USPS1511.1
FEDEX1511.1      DHL1511.1       TRUCK1511.1
TOTAL1512.1    AIRF1512.1     UPS1512.1      USPS1512.1
FEDEX1512.1      DHL1512.1       TRUCK1512.1
TOTAL1513.1    AIRF1513.1     UPS1513.1      USPS1513.1
FEDEX1513.1      DHL1513.1       TRUCK1513.1
TOTAL1514.1    AIRF1514.1     UPS1514.1      USPS1514.1
FEDEX1514.1      DHL1514.1       TRUCK1514.1
TOTAL1515.1    AIRF1515.1     UPS1515.1      USPS1515.1
FEDEX1515.1      DHL1515.1       TRUCK1515.1
TOTAL1517.1    AIRF1517.1     UPS1517.1      USPS1517.1
FEDEX1517.1      DHL1517.1       TRUCK1517.1
TOTAL1518.1    AIRF1518.1     UPS1518.1      USPS1518.1
FEDEX1518.1      DHL1518.1       TRUCK1518.1
TOTAL1519.1    AIRF1519.1     UPS1519.1      USPS1519.1
FEDEX1519.1      DHL1519.1       TRUCK1519.1
TOTAL1520.1    AIRF1520.1     UPS1520.1      USPS1520.1
FEDEX1520.1      DHL1520.1       TRUCK1520.1
TOTAL1521.1    AIRF1521.1     UPS1521.1      USPS1521.1
FEDEX1521.1      DHL1521.1       TRUCK1521.1
TOTAL1522.1    AIRF1522.1     UPS1522.1      USPS1522.1
FEDEX1522.1      DHL1522.1       TRUCK1522.1
TOTAL1523.1    AIRF1523.1     UPS1523.1      USPS1523.1
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FEDEX1523.1      DHL1523.1        TRUCK1523.1
TOTAL1524.1    AIRF1524.1     UPS1524.1      USPS1524.1
FEDEX1524.1      DHL1524.1        TRUCK1524.1
TOTAL1525.1    AIRF1525.1     UPS1525.1      USPS1525.1
FEDEX1525.1      DHL1525.1        TRUCK1525.1
TOTAL1526.1    AIRF1526.1     UPS1526.1      USPS1526.1
FEDEX1526.1      DHL1526.1        TRUCK1526.1
TOTAL1527.1    AIRF1527.1     UPS1527.1      USPS1527.1
FEDEX1527.1      DHL1527.1        TRUCK1527.1
TOTAL1528.1    AIRF1528.1     UPS1528.1      USPS1528.1
FEDEX1528.1      DHL1528.1        TRUCK1528.1
TOTAL1529.1    AIRF1529.1     UPS1529.1      USPS1529.1
FEDEX1529.1      DHL1529.1        TRUCK1529.1
TOTAL1530.1    AIRF1530.1     UPS1530.1      USPS1530.1
FEDEX1530.1      DHL1530.1        TRUCK1530.1
TOTAL1531.1    AIRF1531.1     UPS1531.1      USPS1531.1
FEDEX1531.1      DHL1531.1        TRUCK1531.1
TOTAL1532.1    AIRF1532.1     UPS1532.1      USPS1532.1
FEDEX1532.1      DHL1532.1        TRUCK1532.1
TOTAL1533.1    AIRF1533.1     UPS1533.1      USPS1533.1
FEDEX1533.1      DHL1533.1        TRUCK1533.1
TOTAL1534.1    AIRF1534.1     UPS1534.1      USPS1534.1
FEDEX1534.1      DHL1534.1        TRUCK1534.1
TOTAL1535.1    AIRF1535.1     UPS1535.1      USPS1535.1
FEDEX1535.1      DHL1535.1        TRUCK1535.1
TOTAL1536.1    AIRF1536.1     UPS1536.1      USPS1536.1
FEDEX1536.1      DHL1536.1        TRUCK1536.1
TOTAL1537.1    AIRF1537.1     UPS1537.1      USPS1537.1
FEDEX1537.1      DHL1537.1        TRUCK1537.1
TOTAL1538.1    AIRF1538.1     UPS1538.1      USPS1538.1
FEDEX1538.1      DHL1538.1        TRUCK1538.1
TOTAL1539.1    AIRF1539.1     UPS1539.1      USPS1539.1
FEDEX1539.1      DHL1539.1        TRUCK1539.1
TOTAL1540.1    AIRF1540.1     UPS1540.1      USPS1540.1
FEDEX1540.1      DHL1540.1        TRUCK1540.1
TOTAL1541.1    AIRF1541.1     UPS1541.1      USPS1541.1
FEDEX1541.1      DHL1541.1        TRUCK1541.1
TOTAL1543.1    AIRF1543.1     UPS1543.1      USPS1543.1
FEDEX1543.1      DHL1543.1        TRUCK1543.1
TOTAL3001.1    AIRF3001.1     UPS3001.1      USPS3001.1
FEDEX3001.1      DHL3001.1        TRUCK3001.1
TOTAL3002.1    AIRF3002.1     UPS3002.1      USPS3002.1
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FEDEX3002.1      DHL3002.1       TRUCK3002.1
TOTAL3003.1    AIRF3003.1     UPS3003.1      USPS3003.1
FEDEX3003.1      DHL3003.1       TRUCK3003.1
TOTAL3004.1    AIRF3004.1     UPS3004.1      USPS3004.1
FEDEX3004.1      DHL3004.1       TRUCK3004.1
TOTAL3005.1    AIRF3005.1     UPS3005.1      USPS3005.1
FEDEX3005.1      DHL3005.1       TRUCK3005.1
TOTAL3006.1    AIRF3006.1     UPS3006.1      USPS3006.1
FEDEX3006.1      DHL3006.1       TRUCK3006.1
TOTAL3007.1    AIRF3007.1     UPS3007.1      USPS3007.1
FEDEX3007.1      DHL3007.1       TRUCK3007.1
TOTAL3008.1    AIRF3008.1     UPS3008.1      USPS3008.1
FEDEX3008.1      DHL3008.1       TRUCK3008.1
TOTAL3009.1    AIRF3009.1     UPS3009.1      USPS3009.1
FEDEX3009.1      DHL3009.1       TRUCK3009.1
TOTAL3010.1    AIRF3010.1     UPS3010.1      USPS3010.1
FEDEX3010.1      DHL3010.1       TRUCK3010.1
TOTAL3011.1    AIRF3011.1     UPS3011.1      USPS3011.1
FEDEX3011.1      DHL3011.1       TRUCK3011.1
TOTAL3012.1    AIRF3012.1     UPS3012.1      USPS3012.1
FEDEX3012.1      DHL3012.1       TRUCK3012.1
TOTAL3013.1    AIRF3013.1     UPS3013.1      USPS3013.1
FEDEX3013.1      DHL3013.1       TRUCK3013.1
TOTAL3014.1    AIRF3014.1     UPS3014.1      USPS3014.1
FEDEX3014.1      DHL3014.1       TRUCK3014.1
TOTAL3015.1    AIRF3015.1     UPS3015.1      USPS3015.1
FEDEX3015.1      DHL3015.1       TRUCK3015.1
TOTAL3017.1    AIRF3017.1     UPS3017.1      USPS3017.1
FEDEX3017.1      DHL3017.1       TRUCK3017.1
TOTAL3018.1    AIRF3018.1     UPS3018.1      USPS3018.1
FEDEX3018.1      DHL3018.1       TRUCK3018.1
TOTAL3019.1    AIRF3019.1     UPS3019.1      USPS3019.1
FEDEX3019.1      DHL3019.1       TRUCK3019.1
TOTAL3020.1    AIRF3020.1     UPS3020.1      USPS3020.1
FEDEX3020.1      DHL3020.1       TRUCK3020.1
TOTAL3021.1    AIRF3021.1     UPS3021.1      USPS3021.1
FEDEX3021.1      DHL3021.1       TRUCK3021.1
TOTAL3022.1    AIRF3022.1     UPS3022.1      USPS3022.1
FEDEX3022.1      DHL3022.1       TRUCK3022.1
TOTAL3023.1    AIRF3023.1     UPS3023.1      USPS3023.1
FEDEX3023.1      DHL3023.1       TRUCK3023.1
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TOTAL3024.1    AIRF3024.1     UPS3024.1      USPS3024.1
FEDEX3024.1      DHL3024.1        TRUCK3024.1
TOTAL3025.1    AIRF3025.1     UPS3025.1      USPS3025.1
FEDEX3025.1      DHL3025.1        TRUCK3025.1
TOTAL3026.1    AIRF3026.1     UPS3026.1      USPS3026.1
FEDEX3026.1      DHL3026.1        TRUCK3026.1
TOTAL3027.1    AIRF3027.1     UPS3027.1      USPS3027.1
FEDEX3027.1      DHL3027.1        TRUCK3027.1
TOTAL3028.1    AIRF3028.1     UPS3028.1      USPS3028.1
FEDEX3028.1      DHL3028.1        TRUCK3028.1
TOTAL3029.1    AIRF3029.1     UPS3029.1      USPS3029.1
FEDEX3029.1      DHL3029.1        TRUCK3029.1
TOTAL3030.1    AIRF3030.1     UPS3030.1      USPS3030.1
FEDEX3030.1      DHL3030.1        TRUCK3030.1
TOTAL3031.1    AIRF3031.1     UPS3031.1      USPS3031.1
FEDEX3031.1      DHL3031.1        TRUCK3031.1
TOTAL3032.1    AIRF3032.1     UPS3032.1      USPS3032.1
FEDEX3032.1      DHL3032.1        TRUCK3032.1
TOTAL3033.1    AIRF3033.1     UPS3033.1      USPS3033.1
FEDEX3033.1      DHL3033.1        TRUCK3033.1
TOTAL3034.1    AIRF3034.1     UPS3034.1      USPS3034.1
FEDEX3034.1      DHL3034.1        TRUCK3034.1
TOTAL3035.1    AIRF3035.1     UPS3035.1      USPS3035.1
FEDEX3035.1      DHL3035.1        TRUCK3035.1
TOTAL3036.1    AIRF3036.1     UPS3036.1      USPS3036.1
FEDEX3036.1      DHL3036.1        TRUCK3036.1
TOTAL3037.1    AIRF3037.1     UPS3037.1      USPS3037.1
FEDEX3037.1      DHL3037.1        TRUCK3037.1
TOTAL3038.1    AIRF3038.1     UPS3038.1      USPS3038.1
FEDEX3038.1      DHL3038.1        TRUCK3038.1
TOTAL3039.1    AIRF3039.1     UPS3039.1      USPS3039.1
FEDEX3039.1      DHL3039.1        TRUCK3039.1
TOTAL3040.1    AIRF3040.1     UPS3040.1      USPS3040.1
FEDEX3040.1      DHL3040.1        TRUCK3040.1
TOTAL3041.1    AIRF3041.1     UPS3041.1      USPS3041.1
FEDEX3041.1      DHL3041.1        TRUCK3041.1
TOTAL3043.1    AIRF3043.1     UPS3043.1      USPS3043.1
FEDEX3043.1      DHL3043.1        TRUCK3043.1
```

```
      PROGRAM TRUCKTOT
      DIMENSION C(150,150),AA(150,150)
      INTEGER O(30000),D(30000)
      CHARACTER * 15 TRUCK
C
C     THIS PROGRAM TAKES THREE SETS OF TRUCK FLOWS FOR 41
C     DIFFERENT COMMODITIES AND ADDS THESE UP FOR ANNUAL TOTALS.
C     THE FLOWS ARE DISTRIBUTED IN A 150X150 MATRIX INITIALLY AND
C     THE THREE MATRICES PRODUCED ALSO HAVE THE FLOWS IN THIS
C     FORMAT.
C
      OPEN (7,FILE='DTRUCK_97',STATUS='NEW')
      OPEN (8,FILE='DTRUCK_15',STATUS='NEW')
      OPEN (9,FILE='DTRUCK_30',STATUS='NEW')
      OPEN (5,FILE='TRUCK.CON',STATUS='OLD')

C
C     TRUCK.CON IS A CONTROL CARD SPECIFYING THE ORIGINAL NAMES
C     OF THE INDIVIDUAL COMMODITY FILES.  HERE THERE ARE 41
C     COMMODITIES FOR EACH OF THREE YEARS. MINOR CHANGES IN THE
C     2000 FORMAT STATEMENT WILL YIELD A SIMILAR SET OF THREE
C     MATRICES FOR TOTAL TONS OR TOTAL DOLLARS FOR THE PROJECT
C     DATA.
C
C
      DO 10 LLL=1,3
      DO 20 II =1,150
      DO 20 JJ =1,150
   20 AA(II,JJ) = 0.0
C
      IF(LLL .EQ. 1) GO TO 2
      IF(LLL .EQ. 2) GO TO 4
      IF(LLL .EQ. 3) GO TO 6
C
C
    2 DO 30 LL=1,41
      READ(5,1000)TRUCK
      OPEN(4,FILE=TRUCK,STATUS='OLD')
      WRITE (*,*) LLL,LL
      DO 40 K=1,150
      DO 40 L=1,150
```

```
      READ(4,2000) O(K),D(L),C(K,L)
   40 AA(K,L)=AA(K,L) + C(K,L)
   30 CONTINUE
C
      DO 50 K=1,150
      DO 50 L=1,150
      AA(K,L)=AA(K,L)/306
   50 WRITE (7,3000)O(K),D(L),AA(K,L)
      CLOSE (7)
      GO TO 10
C
    4 DO 60 LL=1,41
      READ(5,1000)TRUCK
      OPEN(4,FILE=TRUCK,STATUS='OLD')
      WRITE (*,*)LLL,LL
      DO 70 K=1,150
      DO 70 L=1,150
      READ(4,2000) O(K),D(L),C(K,L)
   70 AA(K,L)=AA(K,L) + C(K,L)
   60 CONTINUE
C
      DO 80 K=1,150
      DO 80 L=1,150
      AA(K,L)=AA(K,L)/306
   80 WRITE (8,3000)O(K),D(L),AA(K,L)
      CLOSE (8)
      GO TO 10
C
    6 DO 90 LL=1,41
      READ(5,1000)TRUCK
      OPEN(4,FILE=TRUCK,STATUS='OLD')
      WRITE (*,*)LLL,LL
      DO 100 K=1,150
      DO 100 L=1,150
      READ(4,2000) O(K),D(L),C(K,L)
  100 AA(K,L)=AA(K,L) + C(K,L)
   90 CONTINUE
C
      DO 110 K=1,150
      DO 110 L=1,150
      AA(K,L)=AA(K,L)/306
```

```
  110 WRITE (9,3000)O(K),D(L),AA(K,L)
      CLOSE (9)
      GO TO 10
 1000 FORMAT(A15)
 2000 FORMAT(2I8,F15.0)
 3000 FORMAT(2I8,F25.0)
   10 CONTINUE
      CALL EXIT
      END
```

```
      PROGRAM RAILTOT
      DIMENSION C(150,150),AA(150,150)
      INTEGER O(30000),D(30000)
      CHARACTER * 15 RAIL
C
C     THIS PROGRAM TAKES THREE SETS OF RAIL FLOWS FOR 41
C     DIFFERENT COMMODITIES AND ADDS THESE UP FOR ANNUAL TOTALS.
C     THE FLOWS ARE DISTRIBUTED IN A 145X145 MATRIX INITIALLY AND
C     THE THREE MATRICES PRODUCED ALSO HAVE THE FLOWS IN THIS
C     FORMAT.
C
      OPEN (7,FILE='DRAIL_97',STATUS='NEW')
      OPEN (8,FILE='DRAIL_15',STATUS='NEW')
      OPEN (9,FILE='DRAIL_30',STATUS='NEW')
      OPEN (5,FILE='CONTROLRR',STATUS='OLD')

C
C     CONTROLRR IS A CONTROL CARD SPECIFYING THE ORIGINAL NAMES C
      OF THE INDIVIDUAL COMMODITY FILES.  HERE THERE ARE 41
C     COMMODITIES FOR EACH OF THREE YEARS. MINOR CHANGES IN THE
C     2000 FORMAT STATEMENT WILL YIELD A SIMILAR SET OF THREE
C     MATRICES FOR TOTAL TONS OR TOTAL DOLLARS FOR THE PROJECT
C     DATA.
C
C
      DO 10 LLL=1,3
      DO 20 II =1,145
      DO 20 JJ =1,145
   20 AA(II,JJ) = 0.0
C
      IF(LLL .EQ. 1) GO TO 2
      IF(LLL .EQ. 2) GO TO 4
      IF(LLL .EQ. 3) GO TO 6
C
C
    2 DO 30 LL=1,41
      READ(5,1000)RAIL
      OPEN(4,FILE=RAIL,STATUS='OLD')
      WRITE (*,*) LLL,LL
      DO 40 K=1,145
      DO 40 L=1,145
```

```
      READ(4,2000) O(K),D(L),C(K,L)
   40 AA(K,L)=AA(K,L) + C(K,L)
   30 CONTINUE
C
      DO 50 K=1,145
      DO 50 L=1,145
      AA(K,L)=AA(K,L)/306
   50 WRITE (7,3000)O(K),D(L),AA(K,L)
      CLOSE (7)
      GO TO 10
C
    4 DO 60 LL=1,41
      READ(5,1000)RAIL
      OPEN(4,FILE=RAIL,STATUS='OLD')
      WRITE (*,*)LLL,LL
      DO 70 K=1,145
      DO 70 L=1,145
      READ(4,2000) O(K),D(L),C(K,L)
   70 AA(K,L)=AA(K,L) + C(K,L)
   60 CONTINUE
C
      DO 80 K=1,145
      DO 80 L=1,145
      AA(K,L)=AA(K,L)/306
   80 WRITE (8,3000)O(K),D(L),AA(K,L)
      CLOSE (8)
      GO TO 10
C
    6 DO 90 LL=1,41
      READ(5,1000)RAIL
      OPEN(4,FILE=RAIL,STATUS='OLD')
      WRITE (*,*)LLL,LL
      DO 100 K=1,145
      DO 100 L=1,145
      READ(4,2000) O(K),D(L),C(K,L)
  100 AA(K,L)=AA(K,L) + C(K,L)
   90 CONTINUE
C
      DO 110 K=1,145
      DO 110 L=1,145
      AA(K,L)=AA(K,L)/306
```

```
  110 WRITE (9,3000)O(K),D(L),AA(K,L)
      CLOSE (9)
      GO TO 10
C
 1000 FORMAT(10X,A15)
 2000 FORMAT(2I8,F15.0)
 3000 FORMAT(2I8,F25.0)
   10 CONTINUE
      CALL EXIT
      END
```

RAIL9701	RAIL9701.1
RAIL9702	RAIL9702.1
RAIL9703	RAIL9703.1
RAIL9704	RAIL9704.1
RAIL9705	RAIL9705.1
RAIL9706	RAIL9706.1
RAIL9707	RAIL9707.1
RAIL9708	RAIL9708.1
RAIL9709	RAIL9709.1
RAIL9710	RAIL9710.1
RAIL9711	RAIL9711.1
RAIL9712	RAIL9712.1
RAIL9713	RAIL9713.1
RAIL9714	RAIL9714.1
RAIL9715	RAIL9715.1
RAIL9717	RAIL9717.1
RAIL9718	RAIL9718.1
RAIL9719	RAIL9719.1
RAIL9720	RAIL9720.1
RAIL9721	RAIL9721.1
RAIL9722	RAIL9722.1
RAIL9723	RAIL9723.1
RAIL9724	RAIL9724.1
RAIL9725	RAIL9725.1
RAIL9726	RAIL9726.1
RAIL9727	RAIL9727.1
RAIL9728	RAIL9728.1
RAIL9729	RAIL9729.1
RAIL9730	RAIL9730.1
RAIL9731	RAIL9731.1
RAIL9732	RAIL9732.1
RAIL9733	RAIL9733.1
RAIL9734	RAIL9734.1
RAIL9735	RAIL9735.1
RAIL9736	RAIL9736.1
RAIL9737	RAIL9737.1
RAIL9738	RAIL9738.1
RAIL9739	RAIL9739.1
RAIL9740	RAIL9740.1
RAIL9741	RAIL9741.1
RAIL9743	RAIL9743.1

RAIL1501	RAIL1501.1
RAIL1502	RAIL1502.1
RAIL1503	RAIL1503.1
RAIL1504	RAIL1504.1
RAIL1505	RAIL1505.1
RAIL1506	RAIL1506.1
RAIL1507	RAIL1507.1
RAIL1508	RAIL1508.1
RAIL1509	RAIL1509.1
RAIL1510	RAIL1510.1
RAIL1511	RAIL1511.1
RAIL1512	RAIL1512.1
RAIL1513	RAIL1513.1
RAIL1514	RAIL1514.1
RAIL1515	RAIL1515.1
RAIL1517	RAIL1517.1
RAIL1518	RAIL1518.1
RAIL1519	RAIL1519.1
RAIL1520	RAIL1520.1
RAIL1521	RAIL1521.1
RAIL1522	RAIL1522.1
RAIL1523	RAIL1523.1
RAIL1524	RAIL1524.1
RAIL1525	RAIL1525.1
RAIL1526	RAIL1526.1
RAIL1527	RAIL1527.1
RAIL1528	RAIL1528.1
RAIL1529	RAIL1529.1
RAIL1530	RAIL1530.1
RAIL1531	RAIL1531.1
RAIL1532	RAIL1532.1
RAIL1533	RAIL1533.1
RAIL1534	RAIL1534.1
RAIL1535	RAIL1535.1
RAIL1536	RAIL1536.1
RAIL1537	RAIL1537.1
RAIL1538	RAIL1538.1
RAIL1539	RAIL1539.1
RAIL1540	RAIL1540.1
RAIL1541	RAIL1541.1
RAIL1543	RAIL1543.1

RAIL3001	RAIL3001.1
RAIL3002	RAIL3002.1
RAIL3003	RAIL3003.1
RAIL3004	RAIL3004.1
RAIL3005	RAIL3005.1
RAIL3006	RAIL3006.1
RAIL3007	RAIL3007.1
RAIL3008	RAIL3008.1
RAIL3009	RAIL3009.1
RAIL3010	RAIL3010.1
RAIL3011	RAIL3011.1
RAIL3012	RAIL3012.1
RAIL3013	RAIL3013.1
RAIL3014	RAIL3014.1
RAIL3015	RAIL3015.1
RAIL3017	RAIL3017.1
RAIL3018	RAIL3018.1
RAIL3019	RAIL3019.1
RAIL3020	RAIL3020.1
RAIL3021	RAIL3021.1
RAIL3022	RAIL3022.1
RAIL3023	RAIL3023.1
RAIL3024	RAIL3024.1
RAIL3025	RAIL3025.1
RAIL3026	RAIL3026.1
RAIL3027	RAIL3027.1
RAIL3028	RAIL3028.1
RAIL3029	RAIL3029.1
RAIL3030	RAIL3030.1
RAIL3031	RAIL3031.1
RAIL3032	RAIL3032.1
RAIL3033	RAIL3033.1
RAIL3034	RAIL3034.1
RAIL3035	RAIL3035.1
RAIL3036	RAIL3036.1
RAIL3037	RAIL3037.1
RAIL3038	RAIL3038.1
RAIL3039	RAIL3039.1
RAIL3040	RAIL3040.1
RAIL3041	RAIL3041.1
RAIL3043	RAIL3043.1

```
      PROGRAM TOTALRR
      DIMENSION F(150,150),V(150,150),R(150,150),TOT(150,150)
      DIMENSION DOL(150,150),TON(150,150)
      INTEGER NUM(150)
      CHARACTER * 15 RAIL
      CHARACTER * 15 RAILOUT
      OPEN (3,FILE='RAILNODE.TXT',STATUS='OLD')
      OPEN (4,FILE='CONTROLRR',STATUS='OLD')
      OPEN (5,FILE='DEN_VALUE.R',STATUS='OLD')
      N=145
      DO 100 KKK=1,3
      DO 80 I =1,N
   80 READ (3,1000) NUM(I)
      CLOSE (3)
      DO 90 LL=1,41
      DO 95 I=1,N
      DO 95 J=1,N
      V(I,J) =0.0
      R(I,J) =0.0
   95 F(I,J) =0.0
      WRITE(*,*)KKK
      READ (4,2000) RAIL,RAILOUT
      READ (5,3000)DENSITY,DOLLARS
      OPEN (7,FILE=RAILOUT,STATUS='NEW')
      OPEN (6,FILE=RAIL,STATUS='OLD')
      DO 5 I=1,N
      DO 5 J=1,N
      TOT(I,J) =0.0
      DOL(I,J) =0.0
    5 TON(I,J) =0.0
      DO 10 I=1,N
      DO 10 J=1,N
      READ (6,4000)F(I,J)
      F(I,J) = (F(I,J)*1000)
      V(I,J) = (F(I,J)*DOLLARS)
      R(I,J) = (F(I,J)/DENSITY)
      IF(R(I,J) .EQ. 0.0) GO TO 11
      R(I,J) = R(I,J)+ .5
   11 TOT(I,J) = TOT(I,J) + R(I,J)
      DOL(I,J) = DOL(I,J) + V(I,J)
   10 TON(I,J) = TON(I,J) + F(I,J)
```

```
      CLOSE (6)
      DO 70 I=1,N
      DO 70 J=1,N
      WRITE (7,5000)NUM(I),NUM(J),TOT(I,J),DOL(I,J),TON (I,J)
   70 CONTINUE
      CLOSE (7)
 1000 FORMAT (I7)
 2000 FORMAT (2A15)
 3000 FORMAT (2X,F8.0,F11.0)
 4000 FORMAT (8X,F12.0)
 5000 FORMAT (2I8,3F15.0)
      WRITE (*,*)KKK,LL
   90 CONTINUE
      CLOSE (5)
      OPEN (5,FILE='DEN_VALUE.R',STATUS='OLD')
      OPEN (3,FILE='RAILNODE.TXT',STATUS='OLD')
  100 CONTINUE
      CALL EXIT
      END
```

01	9.77	1042.38
02	96.63	121.79
03	86.79	507.50
04	88.28	304.27
05	74.41	2161.68
06	85.50	1069.44
07	87.02	873.50
08	87.31	1084.52
09	45.75	13661.34
10	100.00	171.52
11	97.97	9.66
12	97.97	6.34
13	100.44	48.06
14	95.91	138.97
15	109.36	20.94
17	84.04	225.43
18	88.22	195.79
19	73.66	157.65
20	98.66	539.16
21	40.00	22678.39
22	101.81	152.66
23	93.96	2276.19
24	94.30	2138.10
25	64.11	40.81
26	82.41	384.13
27	82.75	761.84
28	70.90	1337.82
29	45.00	3335.26
30	14.17	8265.63
31	98.64	119.96
32	91.47	850.58
33	79.66	2132.78
34	49.77	8356.27
35	16.69	21954.84
36	21.73	5821.94
37	41.36	23586.82
38	18.00	53741.41
39	15.00	4884.73
40	65.22	3741.45
41	79.86	183.97
43	32.45	2089.53

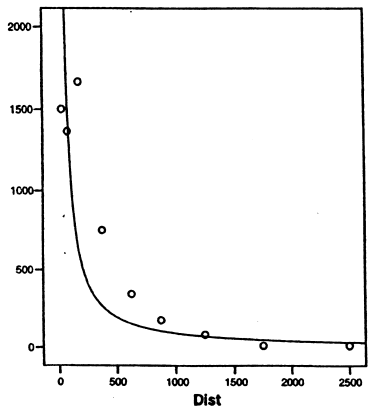
APPENDIX C

DISTANCE DECAY GRAPHS

Table Notes

The graphs that appear on the following pages of this appendix demonstrate the level of distance decay for all of the commodities examined in this project. Commodity groups here are represented by the shorthand of Com1, Com2, and so forth to represent SCTG 1, SCTG 2, and so forth. The ordinate in these graphs represent the total tons (in 1,000s) and the abscissa represents the distance shipped. The graphs are included here to illustrate the extreme level of fall-off of the various shipments with increasing distance.

COM1



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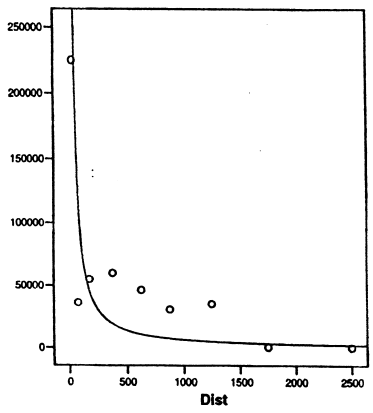

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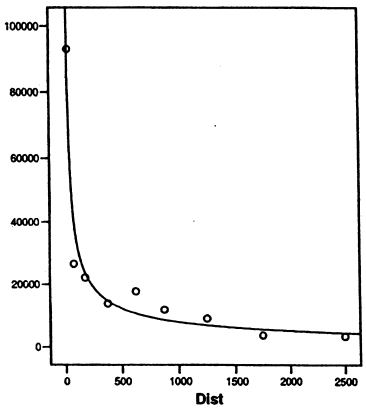

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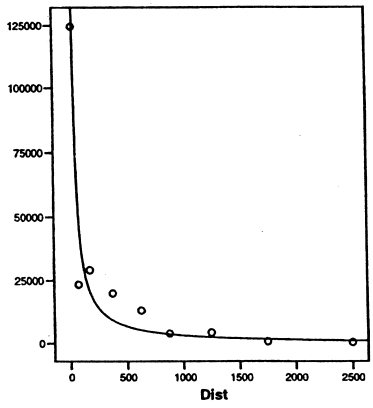

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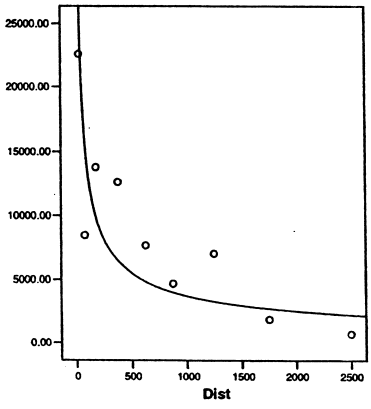

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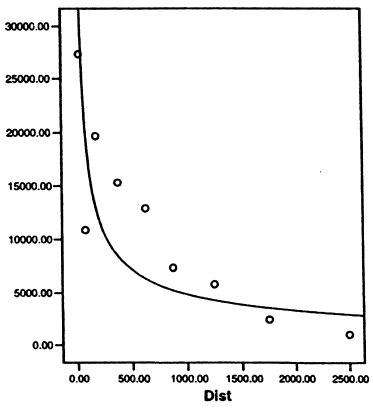

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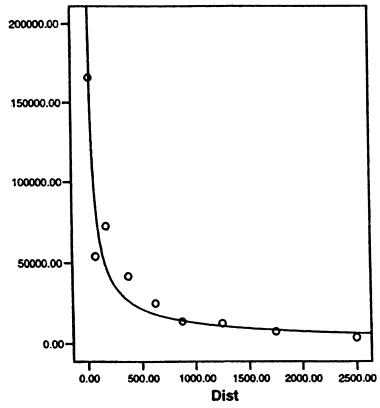

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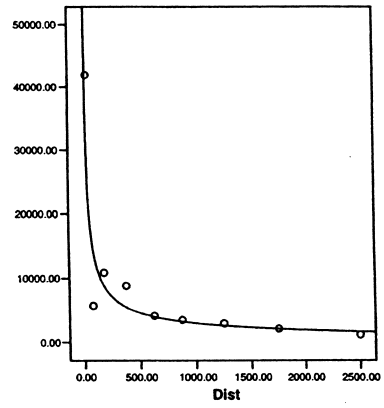

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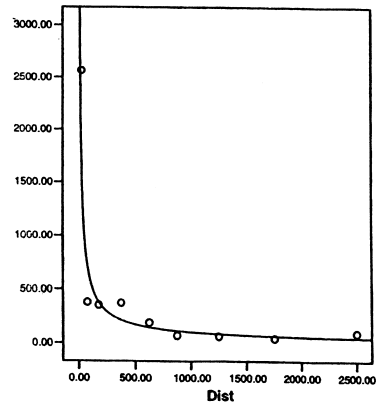

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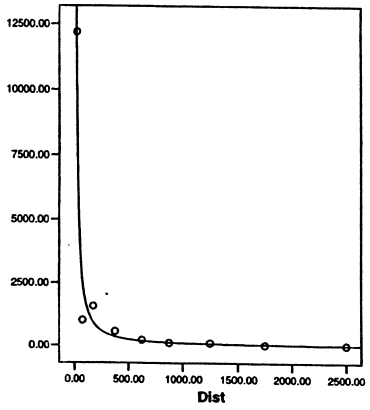

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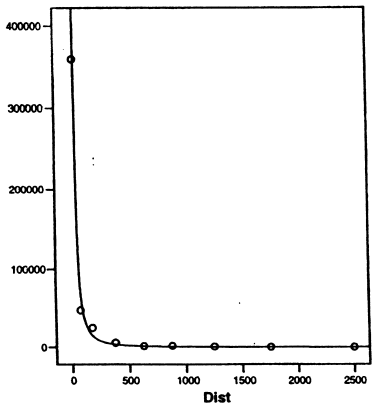

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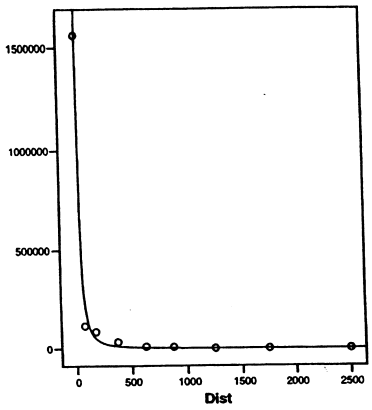

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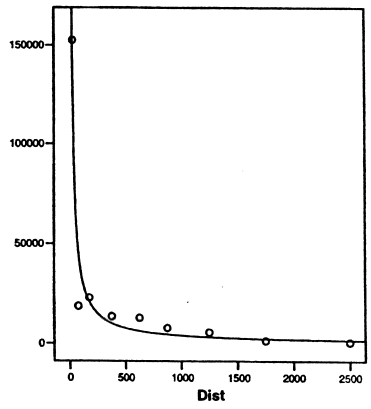

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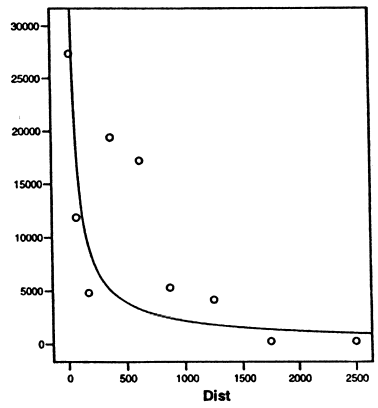

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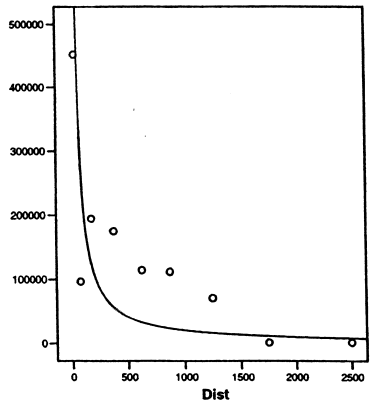

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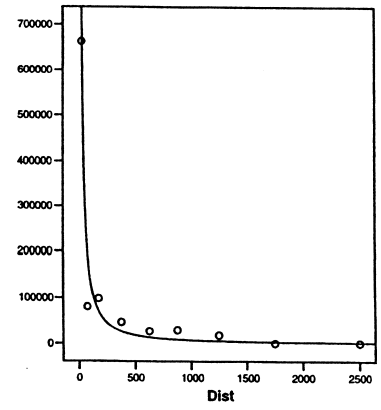

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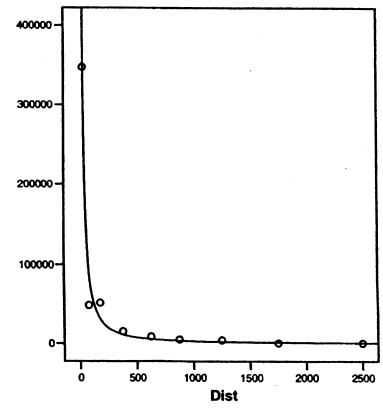

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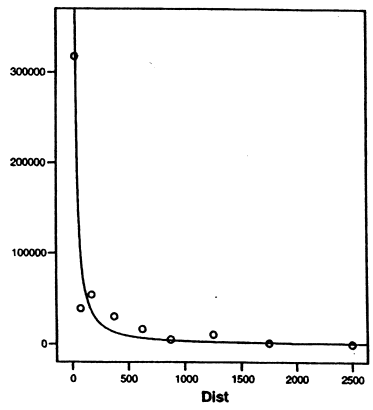

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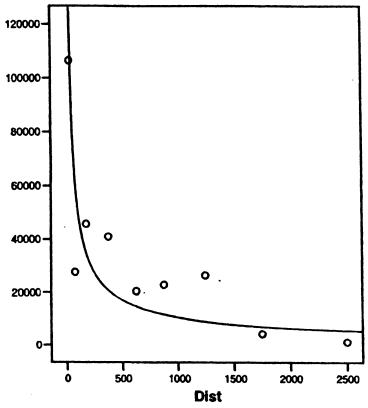

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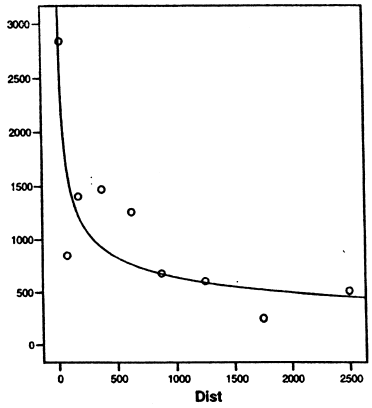

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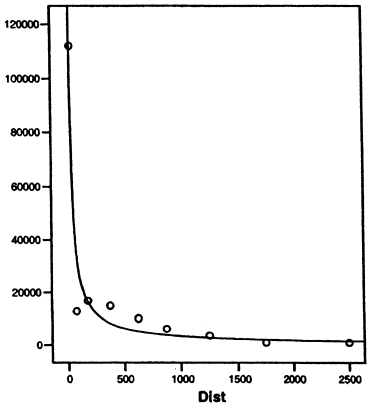

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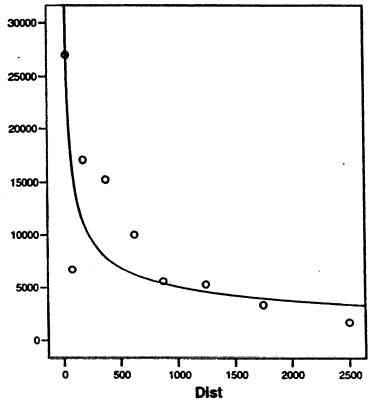

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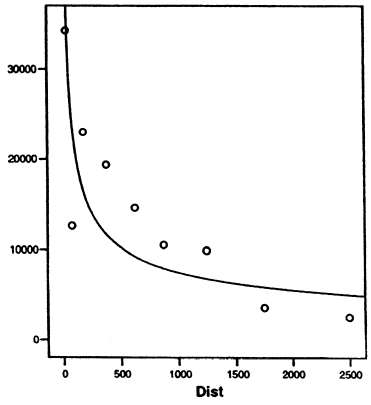

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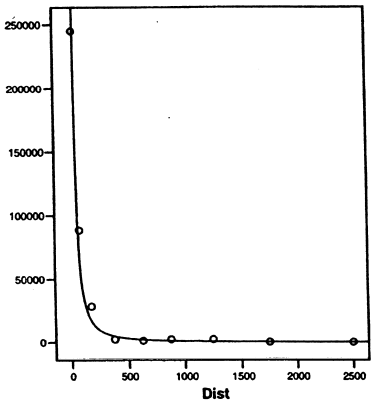

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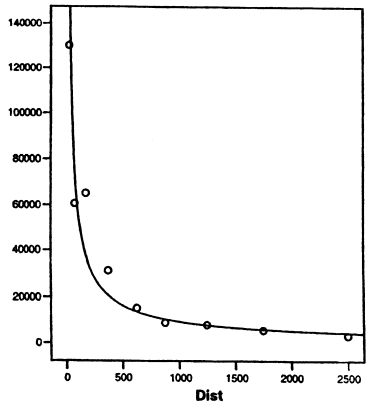

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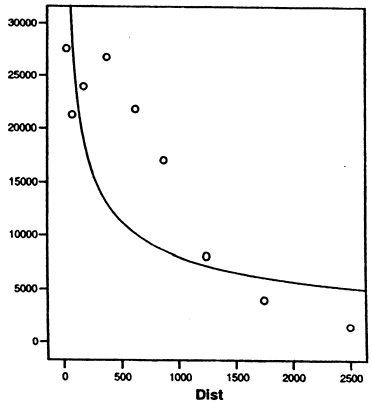

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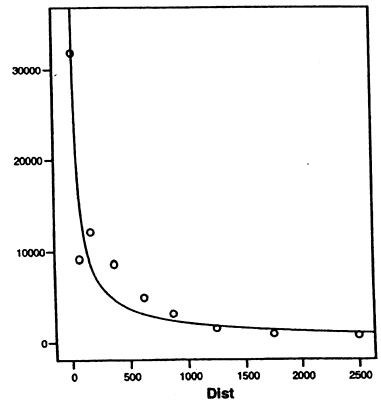

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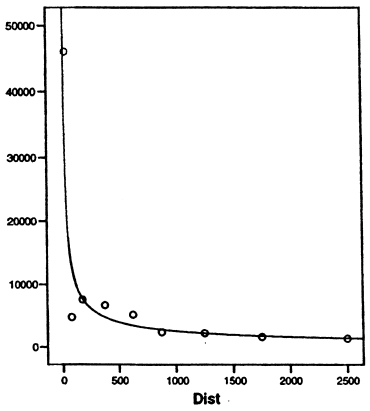

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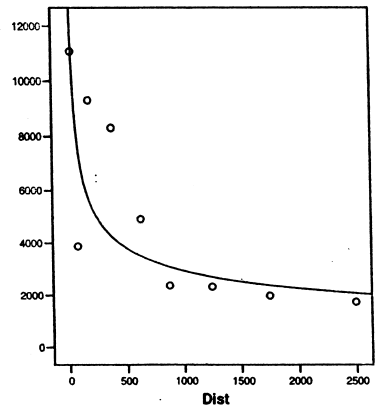

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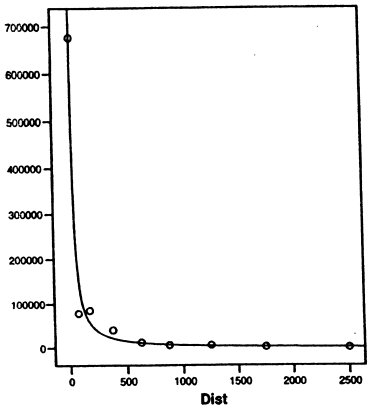

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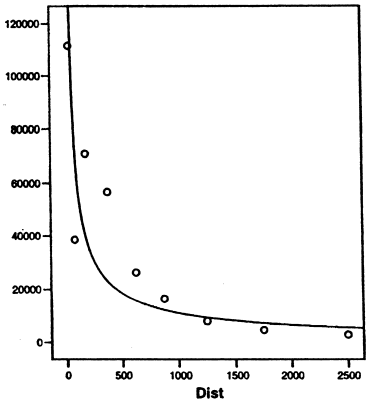

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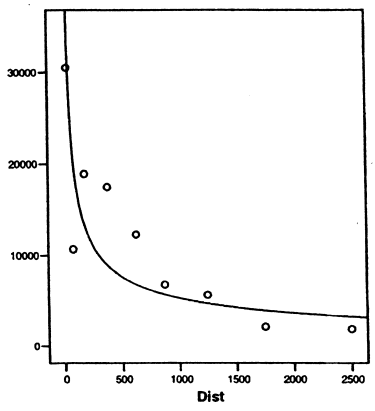

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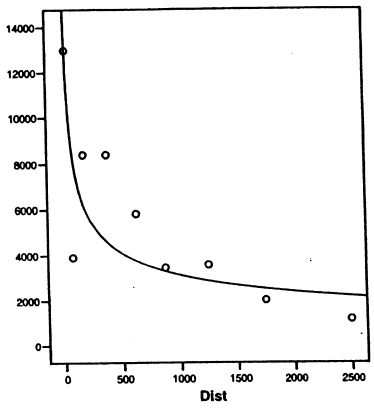

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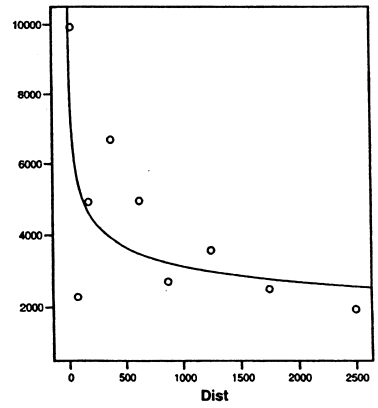

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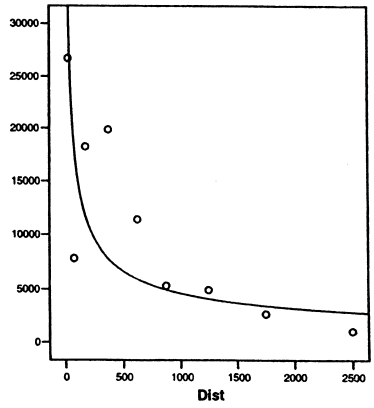

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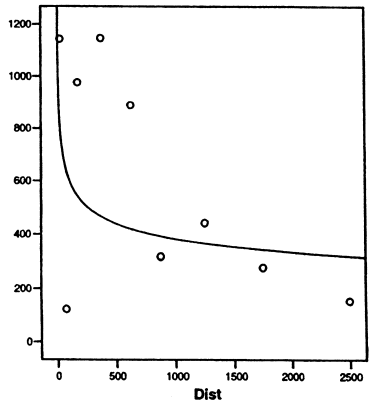

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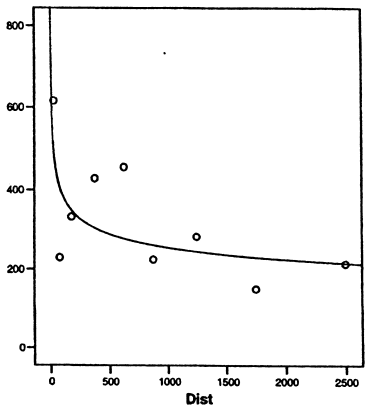

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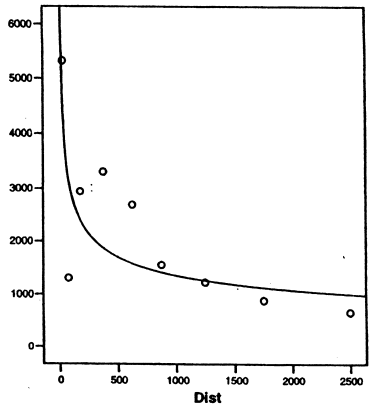

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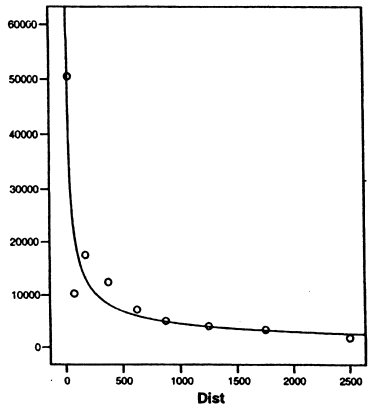

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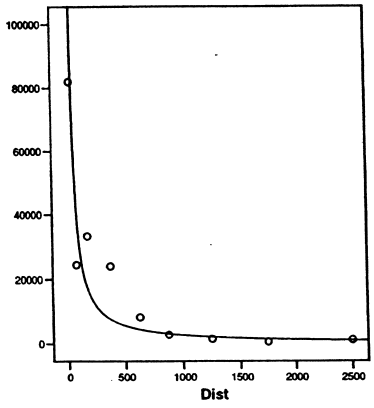

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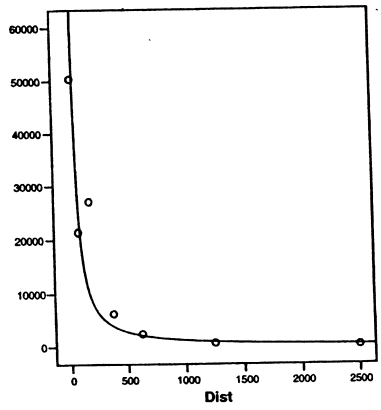

APPENDIX D

MODE CHOICE/DISTANCE TABLES

Table Notes

The numbers that occupy the 21 pages of Appendix D give the proportion of traffic by commodity group using the principal modes of transportation of interest in the flow study. The commodities are represented by their individual Standard Commodity Transportation Group (SCTG) number. The commodities represented by these codes are identified in the text at the top of each table.

For each of the distance bands the proportion of traffic using each mode for those distances are given according to the Commodity Flow Survey for 1997. In the SCTG 01 table the value of 1.000 simply means that all movements of live animals and fish occur by truck according to the survey. Multiple modes are used for every other commodity.

SCTG 01: Live Animals and Live Fish

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.000000
Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 02: Cereal Grains

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.767179	0.806971	0.425976	0.203943	0.042651	0.018970	0.013733	0.253846	0.337580
Rail	0.048011	0.181001	0.483263	0.640952	0.463804	0.427272	0.864998	0.746154	0.662420
Water	0.184810	0.012029	0.090761	0.155104	0.493545	0.553758	0.121269	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 03: Other Agricultural Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.908386	0.954929	0.727691	0.564012	0.245933	0.251661	0.495886	0.822025	0.816437
Rail	0.032787	0.033902	0.147075	0.292151	0.142096	0.225503	0.454114	0.171782	0.169466
Water	0.058774	0.010808	0.124743	0.140227	0.610044	0.520313	0.046624	0.000269	0.002400
Air	0.000000	0.000294	0.000223	0.000433	0.000794	0.001009	0.000738	0.001885	0.009298
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000054	0.000068	0.000268	0.003177	0.001134	0.001514	0.002637	0.004039	0.002400

SCTG 04: Animal Feed and Products of Animal Origin, n.e.c.

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.986693	0.966114	0.890759	0.790973	0.592425	0.565239	0.339597	0.404494	0.710425
Rail	0.010356	0.033459	0.100862	0.192866	0.358198	0.389924	0.642988	0.584270	0.272201
Water	0.002951	0.000342	0.008207	0.016126	0.048934	0.044081	0.017186	0.009988	0.015444
Air	0.000000	0.000043	0.000034	0.000034	0.000088	0.000252	0.000229	0.001248	0.001931
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000043	0.000138	0.000000	0.000354	0.000504	0.000000	0.000000	0.000000

SCTG 05: Meat, Fish, Seafood, and their Preparations

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.989279	0.985244	0.980734	0.977686	0.979940	0.971076	0.956454	0.865024	0.930168
Rail	0.006512	0.008027	0.010936	0.014480	0.016543	0.014675	0.039135	0.052491	0.012570
Water	0.003987	0.006139	0.006808	0.007359	0.002996	0.012335	0.002846	0.079272	0.006983
Air	0.000000	0.000354	0.001231	0.000237	0.000130	0.001276	0.001281	0.002142	0.047486
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000222	0.000236	0.000290	0.000237	0.000391	0.000638	0.000285	0.001071	0.002793

SCTG 06: Milled Grain Products and Preparations, and Bakery Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.968275	0.975834	0.869137	0.802173	0.621892	0.536442	0.476976	0.637031	0.706341
Rail	0.022906	0.023431	0.128932	0.193401	0.376869	0.463421	0.521134	0.360114	0.218537
Water	0.005672	0.000276	0.001372	0.001562	0.000697	0.000000	0.000687	0.000816	0.070244
Air	0.000000	0.000092	0.000051	0.000000	0.000155	0.000137	0.000172	0.000816	0.002927
Pipeline	0.002708	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000439	0.000368	0.000508	0.002863	0.000387	0.000547	0.001031	0.001223	0.001951

SCTG 07: Other Prepared Foodstuffs and Fats and Oils

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.993634	0.968576	0.934332	0.741159	0.647995	0.561271	0.576543	0.529404	0.534853
Rail	0.006342	0.020517	0.049210	0.206405	0.310502	0.382753	0.398421	0.467262	0.373708
Water	0.013297	0.010499	0.015948	0.051673	0.040547	0.054295	0.023680	0.000933	0.082693
Air	0.000000	0.000019	0.000014	0.000072	0.000040	0.000000	0.000080	0.000133	0.004771
Pipeline	0.004917	0.000019	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000227	0.000370	0.000497	0.000692	0.000917	0.001681	0.001276	0.002267	0.003976

SCTG 08: Alcoholic Beverages

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.965198	0.949015	0.928008	0.813671	0.639495	0.556102	0.353062	0.246183	0.494561
Rail	0.034192	0.049578	0.068048	0.180652	0.355410	0.443898	0.642833	0.752385	0.498745
Water	0.000422	0.000879	0.003302	0.004882	0.004124	0.000000	0.002395	0.000000	0.004184
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000188	0.000527	0.000642	0.000795	0.000970	0.000000	0.001711	0.001431	0.002510

SCTG 09: Tobacco Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.999610	0.997375	0.991597	0.992042	0.979058	0.944444	0.939394	0.956522	0.978947
Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000779	0.002625	0.008403	0.007958	0.020942	0.055556	0.060606	0.043478	0.021053

SCTG 10: Monumental or Building Stone

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.999099	1.000000	0.991767	0.974533	0.957265	0.930435	0.936364	0.975000	1.000000
Rail	0.000901	0.000000	0.008233	0.025467	0.042735	0.069565	0.063636	0.025000	0.000000
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 11: Natural Sands

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.986094	0.958685	0.523579	0.662039	0.272144	0.782785	0.087601	0.878049	1.000000
Rail	0.002804	0.032099	0.199324	0.337961	0.727856	0.217215	0.912399	0.121951	0.000000
Water	0.011099	0.009216	0.277097	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000003	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 12: Gravel and Crushed Stone

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.986089	0.872000	0.535452	0.216237	0.236352	0.906527	0.195420	1.000000	1.000000
Rail	0.009438	0.104256	0.206550	0.205616	0.080670	0.093473	0.804580	0.000000	0.000000
Water	0.004473	0.023744	0.257998	0.578147	0.682978	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 13: Nonmetallic Minerals n.e.c.

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.843800	0.775139	0.681240	0.492945	0.271417	0.253613	0.216747	0.185598	0.424028
Rail	0.096066	0.032746	0.191046	0.329467	0.445093	0.457843	0.702910	0.814402	0.575972
Water	0.009142	0.192061	0.127626	0.177070	0.283411	0.288544	0.080343	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.050978	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000013	0.000054	0.000087	0.000517	0.000078	0.000000	0.000000	0.000000	0.000000

SCTG 14: Nonmetallic Ores and Concentrates

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.223939	0.122679	0.455390	0.035283	0.019252	0.025602	0.108962	0.175097	0.201031
Rail	0.673901	0.877153	0.346840	0.053612	0.591751	0.437183	0.822771	0.817121	0.752577
Water	0.077716	0.000000	0.252230	0.910799	0.388786	0.536783	0.066934	0.000000	0.000000
Air	0.000000	0.000168	0.001115	0.000255	0.000211	0.000432	0.001334	0.005837	0.041237
Pipeline	0.024407	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000037	0.000000	0.000186	0.000051	0.000000	0.000000	0.000000	0.001946	0.005155

SCTG 15: Coal

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.620068	0.196035	0.061554	0.010285	0.001646	0.000159	0.000354	0.004345	0.005988
Rail	0.314156	0.580950	0.720071	0.897739	0.902609	0.820925	0.870890	0.995655	0.994012
Water	0.065776	0.223015	0.218375	0.061762	0.095745	0.178917	0.128756	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.030214	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 17: Gasoline and Aviation Turbine Fuel

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.611527	0.780555	0.281662	0.156061	0.051486	0.029731	0.074679	0.483453	1.000000
Rail	0.000622	0.000000	0.021145	0.029423	0.020950	0.010380	0.046058	0.000000	0.000000
Water	0.028771	0.071954	0.348596	0.137147	0.606396	0.605967	0.319114	0.516547	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.359080	0.147491	0.348596	0.677370	0.321168	0.353922	0.560149	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 18: Fuel Oils

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.552221	0.735104	0.364697	0.234801	0.087588	0.137126	0.028598	0.075209	0.970370
Rail	0.001646	0.011459	0.025484	0.130473	0.203437	0.189971	0.183579	0.218663	0.029630
Water	0.072115	0.181436	0.211247	0.307769	0.485551	0.334426	0.383072	0.706128	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.374018	0.072000	0.398572	0.326958	0.223425	0.338476	0.404751	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 19: Coal and Petroleum Products, n.e.c.

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.697035	0.607239	0.494895	0.329072	0.287842	0.212946	0.290933	0.439705	0.410714
Rail	0.052196	0.082322	0.282374	0.477891	0.487034	0.486012	0.564533	0.545529	0.470238
Water	0.147621	0.209088	0.122030	0.173893	0.213485	0.272321	0.126549	0.013946	0.107143
Air	0.000000	0.000026	0.000036	0.000000	0.000060	0.000149	0.000186	0.000000	0.011905
Pipeline	0.103104	0.101249	0.100574	0.018946	0.011458	0.028274	0.017706	0.000000	0.000000
Parcel	0.000044	0.000077	0.000091	0.000199	0.000121	0.000298	0.000093	0.000820	0.000000

SCTG 20: Basic Chemicals

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.537903	0.645021	0.540415	0.327494	0.254799	0.193110	0.242541	0.194744	0.227732
Rail	0.087251	0.108277	0.272848	0.481006	0.569195	0.451624	0.591132	0.803010	0.331497
Water	0.155425	0.111502	0.186049	0.190743	0.175223	0.354304	0.165232	0.000000	0.435721
Air	0.000000	0.000036	0.000022	0.000049	0.000049	0.000262	0.000340	0.000000	0.000459
Pipeline	0.218659	0.134657	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000762	0.000507	0.000666	0.000708	0.000733	0.000700	0.000755	0.002246	0.004591

SCTG 21: Pharmaceutical Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.940472	0.894242	0.848614	0.909769	0.923016	0.883994	0.840722	0.854962	0.874755
Rail	0.001409	0.000000	0.002132	0.000000	0.004762	0.002937	0.006568	0.011450	0.001957
Water	0.000352	0.001175	0.001421	0.000000	0.000000	0.001468	0.001642	0.003817	0.001957
Air	0.000000	0.001175	0.005686	0.006784	0.007143	0.017621	0.024631	0.026718	0.017613
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.057767	0.103408	0.142146	0.083446	0.065079	0.093979	0.126437	0.103053	0.103718

SCTG 22: Fertilizers

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.684074	0.891111	0.660168	0.382646	0.270101	0.089800	0.081315	0.100000	0.846154
Rail	0.287562	0.069751	0.293943	0.517749	0.600333	0.776752	0.853174	0.555385	0.000000
Water	0.028364	0.039061	0.045771	0.099472	0.129566	0.133292	0.065511	0.343846	0.153846
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000078	0.000119	0.000134	0.000000	0.000156	0.000000	0.000769	0.000000

SCTG 23: Chemical Products and Preparations, n.e.c.

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.951450	0.962253	0.942916	0.898222	0.858900	0.765290	0.640116	0.691695	0.620036
Rail	0.020634	0.023101	0.045060	0.091096	0.128291	0.222262	0.347916	0.296660	0.334321
Water	0.000040	0.000000	0.000248	0.000066	0.000000	0.000000	0.000000	0.000000	0.013634
Air	0.000000	0.000906	0.000186	0.000332	0.001525	0.000361	0.001651	0.003678	0.016598
Pipeline	0.018732	0.000000	0.000000	0.000000	0.001830	0.004149	0.000000	0.000000	0.000000
Parcel	0.009144	0.013740	0.011590	0.010284	0.009454	0.007938	0.010318	0.007968	0.015412

SCTG 24: Plastics and Rubber

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.834475	0.921154	0.907454	0.837653	0.706205	0.539693	0.425672	0.527770	0.763975
Rail	0.158614	0.068397	0.081446	0.150121	0.281287	0.444005	0.560796	0.446043	0.193375
Water	0.000063	0.000161	0.000223	0.000210	0.000139	0.000096	0.000205	0.000000	0.004141
Air	0.000000	0.000723	0.000758	0.000840	0.000903	0.001254	0.000923	0.002878	0.007039
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.006849	0.009564	0.010119	0.011176	0.011465	0.014951	0.012405	0.023309	0.031470

SCTG 25: Logs and Other Wood in the Rough

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.992050	0.993393	0.932043	0.921256	0.578928	0.171506	0.062710	0.809651	0.815315
Rail	0.007950	0.006607	0.067957	0.078744	0.421072	0.828494	0.937290	0.190349	0.184685
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 26: Wood Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.970570	0.981268	0.841486	0.832784	0.629432	0.456346	0.377809	0.354594	0.340328
Rail	0.029289	0.018542	0.157688	0.165729	0.368474	0.540239	0.618208	0.644112	0.639672
Water	0.000083	0.000052	0.000389	0.000743	0.000608	0.001935	0.000000	0.000185	0.016721
Air	0.000000	0.000017	0.000049	0.000065	0.000068	0.000114	0.000427	0.000185	0.001311
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000058	0.000121	0.000389	0.000679	0.001418	0.001366	0.003556	0.000924	0.001967

SCTG 27: Pulp, Newsprint, Paper, and Paperboard.

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.889017	0.923358	0.742637	0.639717	0.602093	0.505219	0.484445	0.534578	0.489583
Rail	0.073594	0.073609	0.250118	0.355192	0.395024	0.491341	0.513440	0.450782	0.490972
Water	0.008856	0.001232	0.005316	0.003723	0.001814	0.002491	0.000747	0.012115	0.009722
Air	0.000000	0.000095	0.000343	0.000228	0.000093	0.000297	0.000124	0.001010	0.007639
Pipeline	0.023753	0.000000	0.000086	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.004780	0.001706	0.001501	0.001140	0.000977	0.000652	0.001244	0.001514	0.002083

SCTG 28: Paper or Paperboard

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.991115	0.989339	0.983245	0.943911	0.927955	0.886938	0.884541	0.740385	0.777015
Rail	0.002205	0.002221	0.002681	0.046604	0.052779	0.091189	0.084028	0.226496	0.156089
Water	0.002909	0.002998	0.005529	0.001522	0.008830	0.009242	0.004490	0.000000	0.049743
Air	0.000000	0.000000	0.000000	0.000585	0.000803	0.000308	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.003772	0.005441	0.008545	0.007377	0.009633	0.012323	0.026940	0.033120	0.017153

SCTG 29: Printed Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.978702	0.943923	0.925654	0.910008	0.894581	0.824967	0.801802	0.649783	0.782462
Rail	0.000583	0.007201	0.006536	0.007487	0.008276	0.013095	0.029730	0.067294	0.004216
Water	0.000000	0.000218	0.000817	0.000764	0.000394	0.000873	0.000000	0.000000	0.000843
Air	0.000000	0.006110	0.007217	0.007639	0.007882	0.008730	0.024775	0.033285	0.037099
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.020715	0.042549	0.059777	0.074102	0.088867	0.152335	0.143694	0.249638	0.175379

SCTG 30: Textiles, Leather, and Articles of Textiles or Leather

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.968159	0.946470	0.955556	0.939466	0.912237	0.851306	0.829825	0.863465	0.811429
Rail	0.009496	0.014740	0.012092	0.012981	0.011049	0.024853	0.025877	0.030221	0.032381
Water	0.002234	0.000259	0.001525	0.000000	0.004378	0.006740	0.002632	0.000540	0.005079
Air	0.000000	0.000776	0.001852	0.001123	0.003127	0.002106	0.009211	0.009714	0.017143
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.020110	0.037755	0.028976	0.046430	0.069210	0.114996	0.132456	0.096060	0.133968

SCTG 31: Nonmetallic Mineral Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.996158	0.965438	0.844392	0.760866	0.748244	0.703324	0.642563	0.506673	0.538903
Rail	0.001017	0.019774	0.109733	0.215120	0.173077	0.193754	0.341849	0.463668	0.252252
Water	0.002752	0.014492	0.044575	0.020292	0.071070	0.091840	0.000433	0.000989	0.100737
Air	0.000000	0.000103	0.000894	0.001168	0.004431	0.004197	0.006495	0.020267	0.085995
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000073	0.000193	0.000405	0.002554	0.003177	0.006884	0.008660	0.008403	0.022113

SCTG 32: Base Metal in Primary or Semifinished Forms and in Finished Basic Shapes

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.924155	0.918518	0.810098	0.826479	0.698423	0.439373	0.487023	0.408467	0.544684
Rail	0.066872	0.072279	0.172128	0.159266	0.277317	0.531635	0.487557	0.578309	0.404331
Water	0.008196	0.007884	0.013368	0.012249	0.022007	0.024140	0.010986	0.005211	0.024030
Air	0.000000	0.000448	0.003378	0.001167	0.001167	0.003417	0.011761	0.004229	0.006506
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000777	0.000870	0.001028	0.000839	0.001086	0.001435	0.002673	0.003784	0.020449

SCTG 33: Articles of Base Metal

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.952760	0.968150	0.959246	0.949118	0.853364	0.903874	0.716468	0.681539	0.595390
Rail	0.038070	0.019600	0.024964	0.032827	0.125372	0.071146	0.254563	0.238148	0.240064
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.023847
Air	0.000000	0.000510	0.002168	0.003928	0.002552	0.007747	0.007341	0.013943	0.081876
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.009170	0.011739	0.013622	0.014127	0.018712	0.017233	0.021627	0.066369	0.058824

SCTG 34: Machinery

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.955127	0.917720	0.944059	0.919082	0.901803	0.909562	0.873615	0.835106	0.723010
Rail	0.019770	0.038432	0.017998	0.047320	0.067390	0.046285	0.084157	0.123936	0.074155
Water	0.000656	0.000774	0.001216	0.000237	0.000875	0.000609	0.000299	0.000000	0.019629
Air	0.000000	0.003869	0.003162	0.005442	0.005426	0.008222	0.011980	0.010638	0.109051
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.024446	0.039206	0.033564	0.027919	0.024506	0.035323	0.029949	0.030319	0.074155

SCTG 35: Electronic and Other Electrical Equipment and Components

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.938043	0.915512	0.900561	0.912552	0.908623	0.866038	0.831919	0.789966	0.769639
Rail	0.003009	0.005811	0.006020	0.009479	0.011937	0.015849	0.044709	0.110119	0.046178
Water	0.000223	0.000000	0.000830	0.000612	0.000206	0.000000	0.000000	0.000000	0.003715
Air	0.000000	0.006705	0.013494	0.020180	0.013789	0.025283	0.035654	0.028061	0.050955
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.058725	0.071971	0.079095	0.057178	0.065446	0.092830	0.087719	0.071854	0.129512

SCTG 36: Motorized and Other Vehicles (Including Parts)

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.960406	0.944817	0.815459	0.760207	0.580775	0.490708	0.559418	0.506405	0.586279
Rail	0.033626	0.034237	0.166188	0.223821	0.397599	0.478055	0.414678	0.461571	0.334719
Water	0.000178	0.000134	0.000169	0.000159	0.000183	0.000198	0.000000	0.000000	0.000000
Air	0.000000	0.004162	0.004898	0.003173	0.005498	0.008304	0.009089	0.010248	0.025988
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.005790	0.016649	0.013286	0.012640	0.015944	0.022736	0.016814	0.021776	0.053015

SCTG 37: Transportation Equipment, n.e.c.

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.458111	0.722628	0.780987	0.559367	0.694848	0.730519	0.360179	0.843636	0.669811
Rail	0.453654	0.240876	0.206980	0.427441	0.281374	0.214286	0.590604	0.101818	0.047170
Water	0.067736	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.014260	0.014599	0.004813	0.002639	0.009247	0.035714	0.026846	0.043636	0.103774
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.006239	0.021898	0.007220	0.010554	0.014531	0.019481	0.022371	0.010909	0.179245

SCTG 38: Precision Instruments and Apparatus

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.820339	0.825112	0.758621	0.649874	0.782910	0.613208	0.646388	0.582734	0.614213
Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.022422	0.021944	0.138539	0.027714	0.037736	0.053232	0.107914	0.096447
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.179661	0.152466	0.219436	0.211587	0.189376	0.349057	0.300380	0.309353	0.289340

SCTG 39: Furniture, Mattresses and Mattress Supports, Lamps, Lighting Fittings, and Illuminated Signs

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.987828	0.985893	0.974439	0.967438	0.969201	0.936611	0.921914	0.849598	0.893268
Rail	0.004830	0.000000	0.011744	0.013390	0.009357	0.019405	0.017632	0.113662	0.036125
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.002351	0.001036	0.000609	0.002729	0.003881	0.001679	0.001148	0.021346
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.007342	0.011755	0.012781	0.018564	0.018713	0.040103	0.058774	0.035591	0.049261

SCTG 40: Miscellaneous Manufactured Products

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.991675	0.976212	0.966851	0.918198	0.877531	0.833961	0.798669	0.829880	0.678784
Rail	0.001068	0.002440	0.005525	0.039405	0.052728	0.061470	0.079867	0.076872	0.061467
Water	0.000000	0.000102	0.000356	0.000000	0.000281	0.000471	0.000000	0.000000	0.007270
Air	0.000000	0.001423	0.001545	0.001663	0.002109	0.004004	0.007488	0.005682	0.042300
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.007257	0.019823	0.025723	0.040735	0.067351	0.100094	0.113977	0.087567	0.210178

SCTG 41: Waste and Scrap

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.828197	0.866358	0.666392	0.512191	0.527738	0.549626	0.502116	0.420323	0.933468
Rail	0.160481	0.122912	0.318704	0.450491	0.413068	0.450374	0.497884	0.579677	0.066532
Water	0.011322	0.010730	0.014904	0.037318	0.059194	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

SCTG 43: Mixed Freight

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.998054	0.996801	0.994385	0.979615	0.976795	0.976948	0.965753	0.815356	0.830303
Rail	0.000000	0.000000	0.000000	0.003452	0.009194	0.011129	0.000000	0.142596	0.060606
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.009141	0.000000
Air	0.000000	0.000048	0.000114	0.000329	0.000876	0.001590	0.001712	0.001828	0.024242
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.001946	0.003152	0.005501	0.016604	0.013135	0.010334	0.032534	0.031079	0.084848

Commodity Unknown

	< 50 miles	50 to 99	100 to 249	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 1,999	2,000 +
Trucks	0.965000	0.995447	0.994352	0.998175	0.726257	0.679785	0.526419	0.942857	0.941489
Rail	0.033605	0.000000	0.000000	0.000000	0.263501	0.300537	0.438356	0.000000	0.000000
Water	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Air	0.000000	0.000569	0.000314	0.000166	0.000000	0.000000	0.007828	0.007143	0.026596
Pipeline	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parcel	0.001394	0.003984	0.005334	0.001659	0.010242	0.019678	0.027397	0.050000	0.031915

APPENDIX E

PRODUCTIONS AND ATTRACTIONS 2015

Table Notes

The tables in this appendix give the projected volume of traffic produced and attracted by areas included in this study for each commodity. The area appears under the column label Locale and includes the 145 different areas included in the freight study. From line 14 to line 105 we have the counties of Indiana. States represented by two or more nodes are evident here as well.

The data columns labeled P are productions and those labeled A are attractions. The next two digits represent the commodity groups SCTG 1, SCTG 2, and so forth. The 15 represents the forecast year of the data, 2015.

The data are actually given here to three decimal places. This is because the data as published is in thousands of tons. In many cases this would completely eliminate flows into Indiana counties of several goods. It is for this reason that three decimal places were used. Programs used later would multiply flow estimates by 1,000 to yield tons of commodities. The reader should judge the reliability of the data given these facts.

	Locale	P01_15	A01_15
1	Alabama	279.990	273.215
2	Arizona	207.510	98.289
3	Arkansas	241.367	426.394
4	California	1429.409	1313.489
5	Colorado	106.431	160.111
6	Connecticut	57.282	71.237
7	Delaware	14.183	83.749
8	DC	.000	.000
9	Florida	440.078	366.133
10	Georgia	330.783	563.707
11	Idaho	39.779	152.900
12	Illinois_N	253.183	439.435
13	Illinois_S	126.591	219.718
14	Adams	5.283	2.920
15	Allen	19.887	13.961
16	Bartholomew	14.827	10.824
17	Benton	1.033	.000
18	Blackford	.164	.414
19	Boone	1.436	.101
20	Brown	.000	.077
21	Carroll	7.121	14.028
22	Cass	.177	13.064
23	Clark	22.411	2.435
24	Clay	.183	.077
25	Clinton	1.135	16.680
26	Crawford	.000	.000
27	Daviess	1.163	8.315
28	Dearborn	.000	.095
29	Decatur	.186	2.900
30	DeKalb	.205	.518
31	Delaware	2.657	.994
32	Dubois	126.521	6.468
33	Elkhart	76.541	5.441
34	Fayette	1.015	.000
35	Floyd	8.767	6.057
36	Fountain	.000	.457
37	Franklin	.000	.085
38	Fulton	.000	1.196
39	Gibson	.000	3.128
40	Grant	2.821	1.803
41	Greene	.178	2.815
42	Hamilton	6.388	1.374
43	Hancock	1.420	.100
44	Harrison	14.467	6.822
45	Hendricks	.280	5.456
46	Henry	2.929	.424
47	Howard	6.828	1.222
48	Huntington	.000	3.129
49	Jackson	1.107	.280
50	Jasper	.190	1.801
51	Jay	1.037	3.240

	Locale	P01_15	A01_15
52	Jefferson	.192	.162
53	Jennings	.000	.000
54	Johnson	2.109	.072
55	Knox	.169	.941
56	Kosciusko	5.805	7.336
57	LaGrange	6.079	1.518
58	Lake	4.583	8.634
59	La Porte	3.151	4.264
60	Lawrence	.175	.444
61	Madison	7.555	5.820
62	Marion	23.617	30.389
63	Marshall	1.183	3.554
64	Martin	.000	.429
65	Miami	6.343	.428
66	Monroe	1.422	.832
67	Montgomery	.000	2.971
68	Morgan	.217	.091
69	Newton	1.083	.076
70	Noble	1.157	6.103
71	Ohio	.000	.000
72	Orange	31.054	.449
73	Owen	.000	.081
74	Parke	.179	1.324
75	Perry	4.994	.072
76	Pike	.000	.000
77	Porter	.959	2.556
78	Posey	.000	.480
79	Pulaski	.187	.545
80	Putnam	.000	.079
81	Randolph	.173	.562
82	Ripley	3.351	.081
83	Rush	.000	.187
84	St. Joseph	3.150	5.493
85	Scott	1.126	2.972
86	Shelby	6.013	1.338
87	Spencer	13.252	.448
88	Starke	.175	.000
89	Steuben	.187	1.991
90	Sullivan	.000	.000
91	Switzerland	.220	.000
92	Tippecanoe	15.905	5.765
93	Tipton	.000	1.307
94	Union	.000	.000
95	Vanderburgh	7.712	28.440
96	Vermillion	.000	.057
97	Vigo	1.104	1.927
98	Wabash	.173	.437
99	Warren	.000	.079
100	Warrick	.199	.000
101	Washington	33.851	.490
102	Wayne	11.932	4.973

	Locale	P01_15	A01_15
103	Wells	.199	4.293
104	White	3.178	.322
105	Whitley	.872	.084
106	Iowa	155.599	359.394
107	Kansas	89.936	244.790
108	Kentucky_E	67.243	98.704
109	Kentucky_W	44.828	65.802
110	Louisiana	23.429	137.226
111	Maine	33.935	51.790
112	Maryland	88.012	149.961
113	Massachusetts	132.998	172.491
114	Michigan_E	321.349	130.251
115	Michigan_W	321.349	130.251
116	Minnesota	238.273	370.723
117	Mississippi	546.577	212.432
118	Missouri	235.981	311.984
119	Montana	15.916	18.351
120	Nebraska	57.587	269.081
121	Nevada	45.497	35.024
122	New Hampshire	28.859	19.552
123	New Jersey	165.089	246.176
124	New Mexico	19.655	34.301
125	New York	386.212	377.384
126	North Carolina	1720.518	490.862
127	North Dakota	18.903	40.174
128	Ohio_N	129.383	127.328
129	Ohio_M	129.383	127.328
130	Ohio_S	129.383	127.328
131	Oklahoma	64.338	115.982
132	Oregon	125.082	173.751
133	Pennsylvania	451.649	594.849
134	Rhode Island	41.592	22.992
135	South Carolina	117.284	136.842
136	South Dakota	30.880	63.799
137	Tennessee	510.376	311.240
138	Texas	579.563	826.127
139	Utah	130.400	112.489
140	Vermont	55.694	31.328
141	Virginia	488.382	312.113
142	Washington	156.267	297.545
143	West Virginia	20.180	39.794
144	Wisconsin	334.106	474.224
145	Wyoming	4.145	6.019

	Locale	P02_15	A02_15
1	Alabama	9578.011	9398.901
2	Arizona	3445.686	1844.668
3	Arkansas	14947.925	4010.928
4	California	46046.475	52954.167
5	Colorado	5612.936	1957.536
6	Connecticut	2497.322	1672.914
7	Delaware	2935.969	3426.959
8	DC	.000	.000
9	Florida	12835.370	4360.271
10	Georgia	19761.673	4829.124
11	Idaho	5360.154	762.658
12	Illinois_N	15405.125	14347.629
13	Illinois_S	7702.563	7173.815
14	Adams	102.379	38.791
15	Allen	489.442	239.193
16	Bartholomew	379.451	.000
17	Benton	.000	.000
18	Blackford	14.519	.000
19	Boone	3.542	.000
20	Brown	2.699	.000
21	Carroll	491.757	.000
22	Cass	457.964	.000
23	Clark	85.360	393.582
24	Clay	2.711	.000
25	Clinton	584.758	.000
26	Crawford	.000	.000
27	Daviess	291.494	37.721
28	Dearborn	3.322	43.681
29	Decatur	101.649	.000
30	DeKalb	18.166	.000
31	Delaware	34.852	.000
32	Dubois	226.730	.000
33	Elkhart	190.747	38.642
34	Fayette	.000	.000
35	Floyd	212.323	.000
36	Fountain	16.036	.000
37	Franklin	2.988	235.723
38	Fulton	41.933	.000
39	Gibson	109.664	.000
40	Grant	63.214	.000
41	Greene	98.671	.000
42	Hamilton	48.176	47.625
43	Hancock	3.502	.000
44	Harrison	239.171	260.240
45	Hendricks	191.255	.000
46	Henry	14.859	.000
47	Howard	42.847	.000
48	Huntington	109.694	38.460
49	Jackson	9.829	.000
50	Jasper	63.154	.000
51	Jay	113.590	33.636

	Locale	P02_15	A02_15
52	Jefferson	5.678	.000
53	Jennings	.000	233.792
54	Johnson	2.512	.000
55	Knox	32.993	32.862
56	Kosciusko	257.171	36.913
57	LaGrange	53.198	.000
58	Lake	302.676	7610.073
59	La Porte	149.493	35.036
60	Lawrence	15.556	204.531
61	Madison	204.020	.000
62	Marion	1065.348	431.932
63	Marshall	124.578	230.153
64	Martin	15.046	.000
65	Miami	15.020	.000
66	Monroe	29.151	237.075
67	Montgomery	104.167	.000
68	Morgan	3.205	.000
69	Newton	2.671	.000
70	Noble	213.964	.000
71	Ohio	.000	.000
72	Orange	15.756	.000
73	Owen	2.856	.000
74	Parke	46.425	.000
75	Perry	2.523	.000
76	Pike	.000	.000
77	Porter	89.591	.000
78	Posey	16.824	1382.495
79	Pulaski	19.110	.000
80	Putnam	2.786	.000
81	Randolph	19.689	33.619
82	Ripley	2.834	37.257
83	Rush	6.556	.000
84	St. Joseph	192.551	36.479
85	Scott	104.188	36.529
86	Shelby	46.903	.000
87	Spencer	15.689	.000
88	Starke	.000	.000
89	Steuben	69.804	36.419
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	202.105	41.261
93	Tipton	45.823	.000
94	Union	.000	.000
95	Vanderburgh	997.004	.000
96	Vermillion	2.009	.000
97	Vigo	67.548	.000
98	Wabash	15.323	33.577
99	Warren	2.779	.000
100	Warrick	.000	.000
101	Washington	17.176	.000
102	Wayne	174.347	.000

	Locale	P02_15	A02_15
103	Wells	150.502	.000
104	White	11.287	.000
105	Whitley	2.934	.000
106	Iowa	12599.152	626.109
107	Kansas	8581.524	10171.972
108	Kentucky_E	3460.217	2846.872
109	Kentucky_W	2306.811	1897.914
110	Louisiana	4810.666	44960.578
111	Maine	1815.589	659.522
112	Maryland	5257.116	4395.734
113	Massachusetts	6046.935	3866.728
114	Michigan_E	4566.167	4504.826
115	Michigan_W	4566.167	3003.217
116	Minnesota	12996.290	7692.988
117	Mississippi	7447.132	7067.893
118	Missouri	10937.110	5291.398
119	Montana	643.338	3112.035
120	Nebraska	9433.066	36.156
121	Nevada	1227.806	317.669
122	New Hampshire	685.444	627.989
123	New Jersey	8630.087	13410.305
124	New Mexico	1202.489	3012.913
125	New York	13229.794	5687.246
126	North Carolina	17207.978	2968.716
127	North Dakota	1408.353	598.747
128	Ohio_N	4463.693	6660.818
129	Ohio_M	4463.693	6660.818
130	Ohio_S	4463.693	6660.818
131	Oklahoma	4065.940	9339.176
132	Oregon	6091.127	2909.291
133	Pennsylvania	20853.402	25887.558
134	Rhode Island	806.005	37.605
135	South Carolina	4797.208	1501.059
136	South Dakota	2236.584	36.525
137	Tennessee	10911.011	5309.791
138	Texas	28961.213	97169.754
139	Utah	3943.468	6604.918
140	Vermont	1098.263	229.505
141	Virginia	10941.628	2780.741
142	Washington	10430.908	8310.090
143	West Virginia	1395.060	1377.387
144	Wisconsin	16624.677	1586.009
145	Wyoming	211.020	3092.572

	Locale	P03_15	A03_15
1	Alabama	6240.990	6124.284
2	Arizona	2245.194	1201.978
3	Arkansas	9740.003	2613.503
4	California	30003.684	34504.707
5	Colorado	3657.365	1275.522
6	Connecticut	1627.244	1090.064
7	Delaware	1913.065	2232.992
8	DC	.000	.000
9	Florida	8363.472	2841.134
10	Georgia	12876.621	3146.637
11	Idaho	3492.653	496.945
12	Illinois_N	10037.904	9348.853
13	Illinois_S	5018.952	4674.427
14	Adams	66.710	25.276
15	Allen	318.918	155.857
16	Bartholomew	247.248	.000
17	Benton	.000	.000
18	Blackford	9.461	.000
19	Boone	2.308	.000
20	Brown	1.759	.000
21	Carroll	320.427	.000
22	Cass	298.407	.000
23	Clark	55.620	256.456
24	Clay	1.766	.000
25	Clinton	381.026	.000
26	Crawford	.000	.000
27	Daviess	189.936	24.579
28	Dearborn	2.165	28.462
29	Decatur	66.234	.000
30	DeKalb	11.837	.000
31	Delaware	22.710	.000
32	Dubois	147.736	.000
33	Elkhart	124.290	25.179
34	Fayette	.000	.000
35	Floyd	138.349	.000
36	Fountain	10.449	.000
37	Franklin	1.947	153.596
38	Fulton	27.323	.000
39	Gibson	71.456	.000
40	Grant	41.190	.000
41	Greene	64.294	.000
42	Hamilton	31.391	31.032
43	Hancock	2.282	.000
44	Harrison	155.843	169.571
45	Hendricks	124.621	.000
46	Henry	9.682	.000
47	Howard	27.919	.000
48	Huntington	71.476	25.060
49	Jackson	6.404	.000
50	Jasper	41.151	.000
51	Jay	74.015	21.917

	Locale	P03_15	A03_15
52	Jefferson	3.700	.000
53	Jennings	.000	152.338
54	Johnson	1.637	.000
55	Knox	21.498	21.413
56	Kosciusko	167.571	24.052
57	LaGrange	34.664	.000
58	Lake	197.223	4958.691
59	La Porte	97.409	22.829
60	Lawrence	10.136	133.272
61	Madison	132.939	.000
62	Marion	694.176	281.445
63	Marshall	81.174	149.966
64	Martin	9.804	.000
65	Miami	9.787	.000
66	Monroe	18.995	154.477
67	Montgomery	67.875	.000
68	Morgan	2.088	.000
69	Newton	1.740	.000
70	Noble	139.418	.000
71	Ohio	.000	.000
72	Orange	10.267	.000
73	Owen	1.861	.000
74	Parke	30.250	.000
75	Perry	1.644	.000
76	Pike	.000	.000
77	Porter	58.377	.000
78	Posey	10.963	900.828
79	Pulaski	12.452	.000
80	Putnam	1.816	.000
81	Randolph	12.829	21.906
82	Ripley	1.846	24.276
83	Rush	4.272	.000
84	St. Joseph	125.466	23.769
85	Scott	67.889	23.802
86	Shelby	30.562	.000
87	Spencer	10.223	.000
88	Starke	.000	.000
89	Steuben	45.484	23.731
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	131.691	26.886
93	Tipton	29.858	.000
94	Union	.000	.000
95	Vanderburgh	649.643	.000
96	Vermillion	1.309	.000
97	Vigo	44.014	.000
98	Wabash	9.984	21.879
99	Warren	1.811	.000
100	Warrick	.000	.000
101	Washington	11.192	.000
102	Wayne	113.604	.000

	Locale	P03_15	A03_15
103	Wells	98.066	.000
104	White	7.355	.000
105	Whitley	1.912	.000
106	Iowa	8209.553	407.970
107	Kansas	5591.684	6628.013
108	Kentucky_E	2254.663	1855.009
109	Kentucky_W	1503.108	1236.673
110	Louisiana	3134.609	29296.118
111	Maine	1183.030	429.741
112	Maryland	3425.514	2864.241
113	Massachusetts	3940.157	2519.543
114	Michigan_E	2975.294	2446.104
115	Michigan_W	2975.294	2446.104
116	Minnesota	8468.327	5012.717
117	Mississippi	4852.519	4605.409
118	Missouri	7126.574	3447.852
119	Montana	419.196	2027.788
120	Nebraska	6146.545	23.559
121	Nevada	800.033	206.992
122	New Hampshire	446.633	409.195
123	New Jersey	5623.327	8738.097
124	New Mexico	783.537	1963.201
125	New York	8620.477	3705.785
126	North Carolina	11212.644	1934.402
127	North Dakota	917.677	390.141
128	Ohio_N	2908.523	4340.161
129	Ohio_M	2908.523	4340.161
130	Ohio_S	2908.523	4340.161
131	Oklahoma	2649.349	6085.367
132	Oregon	3968.952	1895.682
133	Pennsylvania	13587.987	16868.221
134	Rhode Island	525.189	24.503
135	South Carolina	3125.840	978.084
136	South Dakota	1457.348	23.799
137	Tennessee	7109.568	3459.837
138	Texas	18871.002	63315.392
139	Utah	2569.547	4303.736
140	Vermont	715.624	149.545
141	Virginia	7129.518	1811.919
142	Washington	6796.735	5414.819
143	West Virginia	909.015	897.499
144	Wisconsin	10832.568	1033.437
145	Wyoming	137.500	2015.107

	Locale	P04_15	A04_15
1	Alabama	6841.975	6841.975
2	Arizona	2461.398	2461.398
3	Arkansas	10677.930	10677.930
4	California	32892.928	32892.928
5	Colorado	4009.556	4009.556
6	Connecticut	1783.942	1783.942
7	Delaware	2097.286	2097.286
8	DC	.000	.000
9	Florida	9168.843	9168.843
10	Georgia	14116.592	14116.592
11	Idaho	3828.983	3828.983
12	Illinois_N	11004.517	11004.517
13	Illinois_S	5502.259	5502.259
14	Adams	73.134	73.134
15	Allen	349.629	349.629
16	Bartholomew	271.057	271.057
17	Benton	.000	.000
18	Blackford	10.372	10.372
19	Boone	2.530	2.530
20	Brown	1.928	1.928
21	Carroll	351.283	351.283
22	Cass	327.143	327.143
23	Clark	60.976	60.976
24	Clay	1.936	1.936
25	Clinton	417.717	417.717
26	Crawford	.000	.000
27	Daviess	208.226	208.226
28	Dearborn	2.373	2.373
29	Decatur	72.612	72.612
30	DeKalb	12.977	12.977
31	Delaware	24.896	24.896
32	Dubois	161.962	161.962
33	Elkhart	136.258	136.258
34	Fayette	.000	.000
35	Floyd	151.672	151.672
36	Fountain	11.455	11.455
37	Franklin	2.135	2.135
38	Fulton	29.954	29.954
39	Gibson	78.337	78.337
40	Grant	45.157	45.157
41	Greene	70.485	70.485
42	Hamilton	34.414	34.414
43	Hancock	2.502	2.502
44	Harrison	170.850	170.850
45	Hendricks	136.622	136.622
46	Henry	10.615	10.615
47	Howard	30.607	30.607
48	Huntington	78.359	78.359
49	Jackson	7.021	7.021
50	Jasper	45.113	45.113
51	Jay	81.142	81.142

	Locale	P04_15	A04_15
52	Jefferson	4.056	4.056
53	Jennings	.000	.000
54	Johnson	1.794	1.794
55	Knox	23.568	23.568
56	Kosciusko	183.708	183.708
57	LaGrange	38.002	38.002
58	Lake	216.214	216.214
59	La Porte	106.789	106.789
60	Lawrence	11.113	11.113
61	Madison	145.740	145.740
62	Marion	761.023	761.023
63	Marshall	88.991	88.991
64	Martin	10.748	10.748
65	Miami	10.729	10.729
66	Monroe	20.824	20.824
67	Montgomery	74.411	74.411
68	Morgan	2.289	2.289
69	Newton	1.908	1.908
70	Noble	152.844	152.844
71	Ohio	.000	.000
72	Orange	11.255	11.255
73	Owen	2.040	2.040
74	Parke	33.163	33.163
75	Perry	1.802	1.802
76	Pike	.000	.000
77	Porter	63.999	63.999
78	Posey	12.018	12.018
79	Pulaski	13.651	13.651
80	Putnam	1.990	1.990
81	Randolph	14.065	14.065
82	Ripley	2.024	2.024
83	Rush	4.683	4.683
84	St. Joseph	137.547	137.547
85	Scott	74.426	74.426
86	Shelby	33.505	33.505
87	Spencer	11.207	11.207
88	Starke	.000	.000
89	Steuben	49.864	49.864
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	144.372	144.372
93	Tipton	32.733	32.733
94	Union	.000	.000
95	Vanderburgh	712.202	712.202
96	Vermillion	1.435	1.435
97	Vigo	48.252	48.252
98	Wabash	10.946	10.946
99	Warren	1.985	1.985
100	Warrick	.000	.000
101	Washington	12.269	12.269
102	Wayne	124.543	124.543

	Locale	P04_15	A04_15
103	Wells	107.510	107.510
104	White	8.063	8.063
105	Whitley	2.096	2.096
106	Iowa	9000.103	9000.103
107	Kansas	6130.142	6130.142
108	Kentucky_E	2471.778	2471.778
109	Kentucky_W	1647.852	1647.852
110	Louisiana	3436.460	3436.460
111	Maine	1296.951	1296.951
112	Maryland	3755.379	3755.379
113	Massachusetts	4319.579	4319.579
114	Michigan_E	3261.804	3261.804
115	Michigan_W	3261.804	3261.804
116	Minnesota	9283.795	9283.795
117	Mississippi	5319.798	5319.798
118	Missouri	7812.836	7812.836
119	Montana	459.563	459.563
120	Nebraska	6738.434	6738.434
121	Nevada	877.073	877.073
122	New Hampshire	489.642	489.642
123	New Jersey	6164.833	6164.833
124	New Mexico	858.988	858.988
125	New York	9450.597	9450.597
126	North Carolina	12292.380	12292.380
127	North Dakota	1006.045	1006.045
128	Ohio_N	3188.603	3188.603
129	Ohio_M	3188.603	3188.603
130	Ohio_S	3188.603	3188.603
131	Oklahoma	2904.471	2904.471
132	Oregon	4351.147	4351.147
133	Pennsylvania	14896.459	14896.459
134	Rhode Island	575.763	575.763
135	South Carolina	3426.847	3426.847
136	South Dakota	1597.686	1597.686
137	Tennessee	7794.193	7794.193
138	Texas	20688.209	20688.209
139	Utah	2816.985	2816.985
140	Vermont	784.535	784.535
141	Virginia	7816.064	7816.064
142	Washington	7451.235	7451.235
143	West Virginia	996.550	996.550
144	Wisconsin	11875.704	11875.704
145	Wyoming	150.740	150.740

	Locale	P06_15	A06_15
1	Alabama	2852.847	2695.418
2	Arizona	1316.959	2344.336
3	Arkansas	4133.071	2774.362
4	California	15008.745	17017.309
5	Colorado	1841.700	2029.153
6	Connecticut	1512.388	1647.016
7	Delaware	725.402	822.642
8	DC	.000	.000
9	Florida	4256.089	7114.177
10	Georgia	5747.710	5587.065
11	Idaho	1351.809	1144.998
12	Illinois_N	6386.968	5037.123
13	Illinois_S	3193.484	2518.561
14	Adams	42.695	27.187
15	Allen	319.889	161.887
16	Bartholomew	226.415	71.867
17	Benton	2.086	2.039
18	Blackford	5.284	4.915
19	Boone	22.314	14.963
20	Brown	.614	4.409
21	Carroll	114.156	66.096
22	Cass	111.133	66.730
23	Clark	52.504	58.550
24	Clay	4.131	8.532
25	Clinton	141.184	86.549
26	Crawford	.000	2.859
27	Daviess	73.155	45.525
28	Dearborn	6.242	14.745
29	Decatur	39.918	18.660
30	DeKalb	30.536	20.721
31	Delaware	47.501	36.371
32	Dubois	56.147	40.253
33	Elkhart	101.830	128.938
34	Fayette	23.346	5.880
35	Floyd	73.115	49.140
36	Fountain	3.647	6.486
37	Franklin	3.127	6.028
38	Fulton	22.608	10.518
39	Gibson	31.849	21.540
40	Grant	35.149	26.555
41	Greene	22.444	20.341
42	Hamilton	24.701	78.597
43	Hancock	11.934	17.882
44	Harrison	57.103	41.531
45	Hendricks	56.752	63.062
46	Henry	16.054	12.831
47	Howard	22.618	25.974
48	Huntington	41.958	25.534
49	Jackson	27.759	16.552
50	Jasper	14.748	15.465
51	Jay	32.925	19.106

	Locale	P06_15	A06_15
52	Jefferson	30.080	10.688
53	Jennings	11.810	7.654
54	Johnson	34.116	39.643
55	Knox	10.472	13.224
56	Kosciusko	92.099	60.896
57	LaGrange	34.452	16.835
58	Lake	117.802	196.027
59	La Porte	103.611	54.284
60	Lawrence	17.445	12.815
61	Madison	61.293	69.484
62	Marion	560.691	529.387
63	Marshall	34.468	31.421
64	Martin	3.765	4.236
65	Miami	10.352	11.732
66	Monroe	78.406	41.899
67	Montgomery	30.366	27.636
68	Morgan	12.887	32.808
69	Newton	3.633	4.118
70	Noble	66.578	45.170
71	Ohio	.000	1.352
72	Orange	3.942	6.752
73	Owen	1.040	5.973
74	Parke	12.732	9.817
75	Perry	6.599	4.604
76	Pike	.000	3.166
77	Porter	39.440	61.714
78	Posey	6.123	62.544
79	Pulaski	22.490	5.674
80	Putnam	7.288	9.566
81	Randolph	23.393	8.733
82	Ripley	.645	8.951
83	Rush	19.352	4.901
84	St. Joseph	102.603	118.083
85	Scott	25.974	24.162
86	Shelby	25.044	22.044
87	Spencer	9.814	7.070
88	Starke	13.244	7.274
89	Steuben	35.460	16.997
90	Sullivan	.000	5.633
91	Switzerland	.000	2.411
92	Tippecanoe	161.098	123.150
93	Tipton	16.676	9.841
94	Union	.372	3.020
95	Vanderburgh	266.126	239.289
96	Vermillion	.457	52.191
97	Vigo	31.757	63.915
98	Wabash	20.250	20.595
99	Warren	7.268	2.305
100	Warrick	2.417	17.150
101	Washington	33.208	9.140
102	Wayne	51.976	41.358

	Locale	P06_15	A06_15
103	Wells	46.148	25.768
104	White	13.534	7.464
105	Whitley	5.752	8.826
106	Iowa	4299.093	2482.291
107	Kansas	2776.981	1931.336
108	Kentucky_E	1313.990	1299.511
109	Kentucky_W	875.993	866.340
110	Louisiana	1430.613	2527.280
111	Maine	524.738	603.244
112	Maryland	1634.808	2559.379
113	Massachusetts	2640.942	2990.331
114	Michigan_E	3086.634	3086.634
115	Michigan_W	3086.634	3086.634
116	Minnesota	4665.429	3207.925
117	Mississippi	2321.413	1845.889
118	Missouri	3825.713	3461.323
119	Montana	215.953	329.327
120	Nebraska	2597.926	1674.618
121	Nevada	366.329	846.604
122	New Hampshire	567.558	478.455
123	New Jersey	2985.832	5372.077
124	New Mexico	324.984	663.775
125	New York	5581.535	8040.131
126	North Carolina	5839.210	5962.654
127	North Dakota	509.104	328.520
128	Ohio_N	2360.553	1937.769
129	Ohio_M	2360.553	1937.769
130	Ohio_S	2360.553	1937.769
131	Oklahoma	1864.040	1467.333
132	Oregon	1947.218	1822.596
133	Pennsylvania	7435.307	6590.244
134	Rhode Island	323.195	444.998
135	South Carolina	2173.838	2913.847
136	South Dakota	702.317	485.626
137	Tennessee	4221.984	3973.740
138	Texas	10587.258	12415.469
139	Utah	1204.068	1317.540
140	Vermont	392.351	304.382
141	Virginia	3372.282	3966.449
142	Washington	2974.990	3057.055
143	West Virginia	459.173	1012.381
144	Wisconsin	7168.060	3835.254
145	Wyoming	76.798	188.198

	Locale	P06_15	A06_15
1	Alabama	2852.847	2695.418
2	Arizona	1316.959	2344.336
3	Arkansas	4133.071	2774.362
4	California	15008.745	17017.309
5	Colorado	1841.700	2029.153
6	Connecticut	1512.388	1647.016
7	Delaware	725.402	822.642
8	DC	.000	.000
9	Florida	4256.089	7114.177
10	Georgia	5747.710	5587.065
11	Idaho	3193.484	1144.998
12	Illinois_N	3193.484	5037.123
13	Illinois_S	3193.484	2518.561
14	Adams	42.695	27.187
15	Allen	319.889	161.887
16	Bartholomew	226.415	71.867
17	Benton	2.086	2.039
18	Blackford	5.284	4.915
19	Boone	22.314	14.963
20	Brown	.614	4.409
21	Carroll	114.156	66.096
22	Cass	111.133	66.730
23	Clark	52.504	58.550
24	Clay	4.131	8.532
25	Clinton	141.184	86.549
26	Crawford	.000	2.859
27	Daviess	73.155	45.525
28	Dearborn	6.242	14.745
29	Decatur	39.918	18.660
30	DeKalb	30.536	20.721
31	Delaware	47.501	36.371
32	Dubois	56.147	40.253
33	Elkhart	101.830	128.938
34	Fayette	23.346	5.880
35	Floyd	73.115	49.140
36	Fountain	3.647	6.486
37	Franklin	3.127	6.028
38	Fulton	22.608	10.518
39	Gibson	31.849	21.540
40	Grant	35.149	26.555
41	Greene	22.444	20.341
42	Hamilton	24.701	78.597
43	Hancock	11.934	17.882
44	Harrison	57.103	41.531
45	Hendricks	56.752	63.062
46	Henry	16.054	12.831
47	Howard	22.618	25.974
48	Huntington	41.958	25.534
49	Jackson	27.759	16.552
50	Jasper	14.748	15.465
51	Jay	32.925	19.106

	Locale	P06_15	A06_15
52	Jefferson	30.080	10.688
53	Jennings	11.810	7.654
54	Johnson	34.116	39.643
55	Knox	10.472	13.224
56	Kosciusko	92.099	60.896
57	LaGrange	34.452	16.835
58	Lake	117.802	196.027
59	La Porte	103.611	54.284
60	Lawrence	17.445	12.815
61	Madison	61.293	69.484
62	Marion	560.691	529.387
63	Marshall	34.468	31.421
64	Martin	3.765	4.236
65	Miami	10.352	11.732
66	Monroe	78.406	41.899
67	Montgomery	30.366	27.636
68	Morgan	12.887	32.808
69	Newton	3.633	4.118
70	Noble	66.578	45.170
71	Ohio	.000	1.352
72	Orange	3.942	6.752
73	Owen	1.040	5.973
74	Parke	12.732	9.817
75	Perry	6.599	4.604
76	Pike	.000	3.166
77	Porter	39.440	61.714
78	Posey	6.123	62.544
79	Pulaski	22.490	5.674
80	Putnam	7.288	9.566
81	Randolph	23.393	8.733
82	Ripley	.645	8.951
83	Rush	19.352	4.901
84	St. Joseph	102.603	118.083
85	Scott	25.974	24.162
86	Shelby	25.044	22.044
87	Spencer	9.814	7.070
88	Starke	13.244	7.274
89	Steuben	35.460	16.997
90	Sullivan	.000	5.633
91	Switzerland	.000	2.411
92	Tippecanoe	161.098	123.150
93	Tipton	16.676	9.841
94	Union	.372	3.020
95	Vanderburgh	266.126	239.289
96	Vermillion	.457	52.191
97	Vigo	31.757	63.915
98	Wabash	20.250	20.595
99	Warren	7.268	2.305
100	Warrick	2.417	17.150
101	Washington	33.208	9.140
102	Wayne	51.976	41.358

	Locale	P06_15	A06_15
103	Wells	46.148	25.768
104	White	13.534	7.464
105	Whitley	5.752	8.826
106	Iowa	4299.093	2482.291
107	Kansas	2776.981	1931.336
108	Kentucky_E	1313.990	1299.511
109	Kentucky_W	875.993	866.340
110	Louisiana	1430.613	2527.280
111	Maine	524.738	603.244
112	Maryland	1634.808	2559.379
113	Massachusetts	2640.942	2990.331
114	Michigan_E	3086.634	2320.723
115	Michigan_W	3086.634	2320.723
116	Minnesota	4665.429	3207.925
117	Mississippi	2321.413	1845.889
118	Missouri	3825.713	3461.323
119	Montana	215.953	329.327
120	Nebraska	2597.926	1674.618
121	Nevada	366.329	846.604
122	New Hampshire	567.558	478.455
123	New Jersey	2985.832	5372.077
124	New Mexico	324.984	663.775
125	New York	5581.535	8040.131
126	North Carolina	5839.210	5962.654
127	North Dakota	509.104	328.520
128	Ohio_N	2360.553	1937.769
129	Ohio_M	2360.553	1937.769
130	Ohio_S	2360.553	1937.769
131	Oklahoma	1864.040	1467.333
132	Oregon	1947.218	1822.596
133	Pennsylvania	7435.307	6590.244
134	Rhode Island	323.195	444.998
135	South Carolina	2173.838	2913.847
136	South Dakota	702.317	485.626
137	Tennessee	4221.984	3973.740
138	Texas	10587.258	12415.469
139	Utah	1204.068	1317.540
140	Vermont	392.351	304.382
141	Virginia	3372.282	3966.449
142	Washington	2974.990	3057.055
143	West Virginia	459.173	1012.381
144	Wisconsin	7168.060	3835.254
145	Wyoming	76.798	188.198

	Locale	P07_15	A07_15
1	Alabama	9821.075	11327.855
2	Arizona	9340.180	10018.967
3	Arkansas	11945.983	10453.142
4	California	65136.628	66655.181
5	Colorado	7388.569	7977.261
6	Connecticut	7269.064	5944.618
7	Delaware	2349.375	2328.232
8	DC	.000	.000
9	Florida	27494.658	30398.666
10	Georgia	22067.122	22984.943
11	Idaho	3858.434	3979.724
12	Illinois_N	21086.014	18113.902
13	Illinois_S	10543.007	9056.951
14	Adams	354.687	78.751
15	Allen	564.790	737.865
16	Bartholomew	233.012	326.182
17	Benton	8.369	33.316
18	Blackford	18.685	74.009
19	Boone	104.037	75.885
20	Brown	18.478	19.862
21	Carroll	220.803	191.008
22	Cass	226.878	203.850
23	Clark	143.148	167.952
24	Clay	27.431	33.089
25	Clinton	273.186	248.812
26	Crawford	11.735	14.341
27	Daviess	149.194	135.599
28	Dearborn	58.694	71.197
29	Decatur	68.063	64.555
30	DeKalb	258.606	88.595
31	Delaware	280.074	225.449
32	Dubois	134.282	159.240
33	Elkhart	461.865	423.829
34	Fayette	24.138	29.499
35	Floyd	177.846	195.945
36	Fountain	56.208	26.485
37	Franklin	24.439	29.388
38	Fulton	70.482	47.696
39	Gibson	229.249	76.712
40	Grant	154.358	154.079
41	Greene	105.294	73.839
42	Hamilton	360.415	368.579
43	Hancock	73.047	121.533
44	Harrison	178.679	131.097
45	Hendricks	237.354	259.409
46	Henry	52.863	67.816
47	Howard	134.922	118.053
48	Huntington	161.722	113.599
49	Jackson	56.815	121.123
50	Jasper	56.995	59.529
51	Jay	66.760	71.326

	Locale	P07_15	A07_15
52	Jefferson	109.459	42.635
53	Jennings	30.087	45.976
54	Johnson	246.103	218.840
55	Knox	50.897	64.676
56	Kosciusko	283.470	182.217
57	LaGrange	62.300	67.608
58	Lake	615.127	734.004
59	La Porte	200.155	248.317
60	Lawrence	52.806	59.842
61	Madison	220.292	258.854
62	Marion	1386.692	1833.965
63	Marshall	141.211	171.117
64	Martin	15.844	16.951
65	Miami	170.057	94.915
66	Monroe	928.478	202.177
67	Montgomery	225.358	107.325
68	Morgan	80.317	97.640
69	Newton	72.652	26.723
70	Noble	335.147	157.428
71	Ohio	5.551	6.784
72	Orange	162.674	29.367
73	Owen	24.228	29.150
74	Parke	67.722	35.977
75	Perry	84.238	22.375
76	Pike	12.998	15.884
77	Porter	203.769	213.205
78	Posey	34.385	39.324
79	Pulaski	93.350	24.437
80	Putnam	38.982	47.192
81	Randolph	33.827	38.184
82	Ripley	28.807	60.428
83	Rush	19.443	30.544
84	St. Joseph	540.828	487.110
85	Scott	78.179	64.712
86	Shelby	73.688	70.294
87	Spencer	26.237	29.549
88	Starke	22.880	36.001
89	Steuben	153.268	73.922
90	Sullivan	21.878	26.737
91	Switzerland	9.896	13.782
92	Tippecanoe	266.130	286.628
93	Tipton	34.513	42.967
94	Union	9.018	8.710
95	Vanderburgh	1320.017	641.110
96	Vermillion	16.474	42.562
97	Vigo	140.626	220.937
98	Wabash	50.535	95.904
99	Warren	9.178	10.771
100	Warrick	61.833	74.592
101	Washington	47.664	40.941
102	Wayne	265.026	169.229

	Locale	P07_15	A07_15
103	Wells	243.195	95.379
104	White	169.248	42.564
105	Whitley	164.203	68.408
106	Iowa	10683.108	8592.086
107	Kansas	7209.699	6705.209
108	Kentucky_E	6069.782	5113.453
109	Kentucky_W	4046.522	3408.969
110	Louisiana	6903.260	8699.702
111	Maine	2307.547	3978.963
112	Maryland	8503.770	10026.924
113	Massachusetts	12256.213	12676.039
114	Michigan_E	16818.545	9115.832
115	Michigan_W	8409.273	9115.832
116	Minnesota	12943.816	13332.723
117	Mississippi	9046.922	7263.316
118	Missouri	14049.054	12664.657
119	Montana	1228.979	1497.167
120	Nebraska	6528.063	5516.874
121	Nevada	3306.357	3734.909
122	New Hampshire	2945.218	2478.650
123	New Jersey	14361.354	16220.069
124	New Mexico	2630.696	2848.423
125	New York	27999.403	30828.188
126	North Carolina	24094.090	20671.276
127	North Dakota	1207.694	1244.991
128	Ohio_N	8755.587	7466.617
129	Ohio_M	8755.587	7466.617
130	Ohio_S	8755.587	7466.617
131	Oklahoma	5746.726	6166.634
132	Oregon	6598.837	7916.742
133	Pennsylvania	26179.999	26594.185
134	Rhode Island	2219.484	1883.977
135	South Carolina	9581.668	9076.029
136	South Dakota	1745.778	1781.315
137	Tennessee	15793.673	13795.432
138	Texas	41324.497	43243.901
139	Utah	4518.129	4923.052
140	Vermont	1382.354	1416.705
141	Virginia	14951.442	15838.826
142	Washington	11529.569	13785.684
143	West Virginia	2650.728	2726.885
144	Wisconsin	19098.644	18700.843
145	Wyoming	594.693	692.012

	Locale	P08_15	A08_15
1	Alabama	2548.120	3509.376
2	Arizona	4849.791	3747.554
3	Arkansas	1404.338	1515.744
4	California	29059.440	29097.086
5	Colorado	3264.401	3220.386
6	Connecticut	2213.726	1733.902
7	Delaware	455.577	397.730
8	DC	.000	.000
9	Florida	11012.671	10412.486
10	Georgia	4845.402	6119.713
11	Idaho	1245.448	877.392
12	Illinois_N	5177.909	4362.485
13	Illinois_S	2588.954	2181.243
14	Adams	38.285	31.722
15	Allen	274.523	199.036
16	Bartholomew	55.509	40.268
17	Benton	3.794	3.199
18	Blackford	5.784	4.877
19	Boone	41.065	29.620
20	Brown	7.297	8.143
21	Carroll	9.098	7.671
22	Cass	27.831	22.861
23	Clark	50.814	42.197
24	Clay	12.204	10.184
25	Clinton	36.440	29.998
26	Crawford	5.320	4.486
27	Daviess	13.695	18.042
28	Dearborn	26.325	127.742
29	Decatur	11.182	9.428
30	DeKalb	29.079	21.143
31	Delaware	55.061	47.539
32	Dubois	40.036	25.908
33	Elkhart	155.592	106.409
34	Fayette	10.944	9.227
35	Floyd	53.826	40.790
36	Fountain	9.401	9.382
37	Franklin	10.527	8.876
38	Fulton	9.578	22.282
39	Gibson	21.119	15.681
40	Grant	.	.
41	Greene	16.565	13.357
42	Hamilton	138.009	113.977
43	Hancock	32.817	35.463
44	Harrison	18.596	15.678
45	Hendricks	79.410	64.690
46	Henry	21.861	17.878
47	Howard	40.204	40.643
48	Huntington	62.796	35.725
49	Jackson	18.790	15.842
50	Jasper	19.020	14.142
51	Jay	9.246	14.530

	Locale	P08_15	A08_15
52	Jefferson	15.104	13.980
53	Jennings	13.641	11.501
54	Johnson	89.254	70.083
55	Knox	18.976	15.218
56	Kosciusko	38.099	37.179
57	LaGrange	20.177	16.320
58	Lake	217.745	227.995
59	La Porte	50.319	68.710
60	Lawrence	21.788	24.595
61	Madison	61.532	51.774
62	Marion	448.707	519.102
63	Marshall	22.177	41.362
64	Martin	4.399	3.709
65	Miami	15.542	13.784
66	Monroe	91.439	74.034
67	Montgomery	17.395	15.025
68	Morgan	91.394	55.436
69	Newton	11.132	7.584
70	Noble	23.636	19.268
71	Ohio	2.517	2.122
72	Orange	8.916	8.669
73	Owen	10.456	8.815
74	Parke	7.516	7.501
75	Perry	8.234	6.845
76	Pike	5.893	4.968
77	Porter	70.904	58.949
78	Posey	12.476	10.518
79	Pulaski	6.134	5.171
80	Putnam	21.990	16.660
81	Randolph	13.213	10.879
82	Ripley	14.221	14.777
83	Rush	7.852	6.849
84	St. Joseph	151.761	119.709
85	Scott	10.922	16.522
86	Shelby	19.672	16.586
87	Spencer	8.992	7.581
88	Starke	10.373	8.746
89	Steuben	17.111	13.786
90	Sullivan	9.919	10.512
91	Switzerland	4.487	3.783
92	Tippecanoe	114.404	82.440
93	Tipton	7.167	6.043
94	Union	3.231	2.724
95	Vanderburgh	78.680	90.288
96	Vermillion	7.097	5.984
97	Vigo	93.351	60.683
98	Wabash	28.620	18.932
99	Warren	3.647	3.075
100	Warrick	27.106	22.853
101	Washington	13.031	14.465
102	Wayne	52.344	36.680

	Locale	P08_15	A08_15
103	Wells	13.385	11.172
104	White	15.936	11.623
105	Whitley	20.177	15.055
106	Iowa	1747.966	1563.537
107	Kansas	1404.565	1298.196
108	Kentucky_E	1313.923	2021.022
109	Kentucky_W	875.949	1347.348
110	Louisiana	2087.918	2249.200
111	Maine	781.098	747.268
112	Maryland	3392.538	2970.209
113	Massachusetts	5659.235	4355.236
114	Michigan_E	2653.895	2354.822
115	Michigan_W	2653.895	2354.822
116	Minnesota	4217.972	3135.700
117	Mississippi	1424.282	1882.692
118	Missouri	3016.272	3335.324
119	Montana	446.496	423.725
120	Nebraska	942.202	825.406
121	Nevada	1324.207	1214.274
122	New Hampshire	1381.317	1022.297
123	New Jersey	4975.562	5009.001
124	New Mexico	1201.671	972.092
125	New York	10696.015	11658.982
126	North Carolina	5853.582	9282.149
127	North Dakota	320.181	279.279
128	Ohio_N	2016.936	1873.024
129	Ohio_M	2016.936	1873.024
130	Ohio_S	2016.936	1873.024
131	Oklahoma	1925.777	1903.863
132	Oregon	2925.952	2427.854
133	Pennsylvania	7129.334	7634.094
134	Rhode Island	679.343	573.575
135	South Carolina	2476.084	2636.953
136	South Dakota	706.825	496.093
137	Tennessee	3162.190	4247.257
138	Texas	15678.293	14790.898
139	Utah	1681.379	1378.877
140	Vermont	572.170	461.183
141	Virginia	4553.535	6132.610
142	Washington	4404.029	3804.660
143	West Virginia	828.464	838.277
144	Wisconsin	3193.994	2939.385
145	Wyoming	242.173	223.106

	Locale	P09_15	A09_15
1	Alabama	363.743	370.877
2	Arizona	82.868	79.176
3	Arkansas	107.152	103.376
4	California	680.387	660.226
5	Colorado	42.634	40.747
6	Connecticut	56.891	57.508
7	Delaware	15.034	15.232
8	DC	.000	.000
9	Florida	197.154	190.354
10	Georgia	844.728	873.113
11	Idaho	14.610	13.841
12	Illinois_N	97.930	93.273
13	Illinois_S	48.965	46.636
14	Adams	1.865	1.759
15	Allen	7.146	6.754
16	Bartholomew	5.234	4.937
17	Benton	.365	.344
18	Blackford	.058	.054
19	Boone	.507	.478
20	Brown	.000	.000
21	Carroll	2.513	2.371
22	Cass	.062	.059
23	Clark	7.911	7.462
24	Clay	.065	.061
25	Clinton	.401	.378
26	Crawford	.000	.000
27	Daviess	.411	.387
28	Dearborn	.000	.000
29	Decatur	.066	.062
30	DeKalb	.072	.068
31	Delaware	.938	.885
32	Dubois	44.659	42.126
33	Elkhart	27.144	25.617
34	Fayette	.358	.338
35	Floyd	3.094	2.919
36	Fountain	.000	.000
37	Franklin	.000	.000
38	Fulton	.000	.000
39	Gibson	.000	.000
40	Grant	.996	.939
41	Greene	.063	.059
42	Hamilton	2.411	2.290
43	Hancock	.501	.473
44	Harrison	5.107	4.817
45	Hendricks	.099	.093
46	Henry	1.034	.975
47	Howard	2.410	2.274
48	Huntington	.000	.000
49	Jackson	.391	.369
50	Jasper	.067	.063
51	Jay	.366	.345

	Locale	P09_15	A09_15
52	Jefferson	.068	.064
53	Jennings	.000	.000
54	Johnson	.745	.702
55	Knox	.060	.056
56	Kosciusko	2.170	2.059
57	LaGrange	2.146	2.024
58	Lake	1.618	1.526
59	La Porte	1.799	1.769
60	Lawrence	.062	.058
61	Madison	2.783	2.638
62	Marion	9.047	8.609
63	Marshall	.418	.394
64	Martin	.000	.000
65	Miami	2.239	2.112
66	Monroe	.502	.473
67	Montgomery	.000	.000
68	Morgan	.076	.072
69	Newton	.382	.361
70	Noble	.408	.385
71	Ohio	.000	.000
72	Orange	10.961	10.340
73	Owen	.000	.000
74	Parke	.063	.060
75	Perry	1.763	1.663
76	Pike	.000	.000
77	Porter	1.055	1.070
78	Posey	.000	.000
79	Pulaski	.066	.062
80	Putnam	.000	.000
81	Randolph	.720	.748
82	Ripley	1.183	1.116
83	Rush	.000	.000
84	St. Joseph	1.231	1.174
85	Scott	.398	.375
86	Shelby	2.122	2.002
87	Spencer	4.678	4.412
88	Starke	.062	.058
89	Steuben	.066	.062
90	Sullivan	.000	.000
91	Switzerland	.078	.073
92	Tippecanoe	5.614	5.296
93	Tipton	.000	.000
94	Union	.000	.000
95	Vanderburgh	2.844	2.696
96	Vermillion	.000	.000
97	Vigo	.390	.368
98	Wabash	.061	.057
99	Warren	.000	.000
100	Warrick	.070	.066
101	Washington	11.949	11.271
102	Wayne	4.212	3.973

	Locale	P09_15	A09_15
103	Wells	.196	.198
104	White	3.141	3.174
105	Whitley	.308	.290
106	Iowa	56.383	53.338
107	Kansas	33.244	31.515
108	Kentucky_E	35.513	34.733
109	Kentucky_W	23.676	23.155
110	Louisiana	9.700	9.299
111	Maine	67.751	69.754
112	Maryland	53.233	52.537
113	Massachusetts	196.565	201.097
114	Michigan_E	117.327	111.801
115	Michigan_W	117.327	111.081
116	Minnesota	93.868	89.567
117	Mississippi	225.096	215.700
118	Missouri	91.323	86.984
119	Montana	6.369	6.086
120	Nebraska	24.755	23.815
121	Nevada	16.232	15.330
122	New Hampshire	45.288	46.398
123	New Jersey	172.906	175.114
124	New Mexico	7.724	7.368
125	New York	284.384	283.772
126	North Carolina	2159.161	2199.344
127	North Dakota	7.343	6.997
128	Ohio_N	59.821	57.911
129	Ohio_M	59.821	57.911
130	Ohio_S	59.821	57.911
131	Oklahoma	27.649	26.598
132	Oregon	47.530	45.188
133	Pennsylvania	320.038	318.720
134	Rhode Island	87.549	90.221
135	South Carolina	833.985	869.752
136	South Dakota	19.845	19.657
137	Tennessee	331.708	328.779
138	Texas	290.316	282.836
139	Utah	47.788	45.262
140	Vermont	21.220	20.180
141	Virginia	449.758	453.319
142	Washington	65.150	62.502
143	West Virginia	11.393	11.194
144	Wisconsin	148.139	142.903
145	Wyoming	1.584	1.507

	Locale	P10_15	A10_15
1	Alabama	244.922	273.782
2	Arizona	318.710	183.488
3	Arkansas	159.061	150.518
4	California	2411.947	1430.745
5	Colorado	268.309	141.126
6	Connecticut	227.940	318.937
7	Delaware	64.415	160.078
8	DC	.000	.000
9	Florida	1100.889	495.261
10	Georgia	599.313	558.035
11	Idaho	100.732	73.030
12	Illinois_N	628.845	711.181
13	Illinois_S	314.422	355.590
14	Adams	1.659	3.658
15	Allen	32.225	7.795
16	Bartholomew	2.458	3.627
17	Benton	.935	.000
18	Blackford	.343	.000
19	Boone	2.268	.000
20	Brown	.068	.191
21	Carroll	1.223	.000
22	Cass	1.212	.000
23	Clark	3.177	14.257
24	Clay	.485	1.152
25	Clinton	1.034	3.470
26	Crawford	.000	.000
27	Daviess	1.140	1.220
28	Dearborn	.782	.235
29	Decatur	2.160	.000
30	DeKalb	4.025	4.848
31	Delaware	4.188	1.679
32	Dubois	2.905	1.208
33	Elkhart	8.684	36.438
34	Fayette	1.065	.000
35	Floyd	3.252	2.116
36	Fountain	1.542	.189
37	Franklin	.454	.000
38	Fulton	1.250	.192
39	Gibson	.674	.000
40	Grant	1.704	1.605
41	Greene	.727	.000
42	Hamilton	14.835	1.540
43	Hancock	3.454	.000
44	Harrison	.710	1.145
45	Hendricks	3.247	.294
46	Henry	2.448	.000
47	Howard	2.244	.000
48	Huntington	2.000	1.243
49	Jackson	2.588	3.385
50	Jasper	.902	.000
51	Jay	1.211	.000

	Locale	P10_15	A10_15
52	Jefferson	.393	1.207
53	Jennings	.540	.210
54	Johnson	2.389	1.525
55	Knox	2.983	.000
56	Kosciusko	3.707	6.603
57	LaGrange	2.017	.212
58	Lake	36.778	28.337
59	La Porte	6.909	6.249
60	Lawrence	2.387	.000
61	Madison	3.164	7.227
62	Marion	82.694	118.403
63	Marshall	2.021	2.687
64	Martin	.572	.000
65	Miami	2.731	1.064
66	Monroe	7.736	3.470
67	Montgomery	1.659	3.444
68	Morgan	.641	8.514
69	Newton	.866	.189
70	Noble	2.618	4.366
71	Ohio	.000	.000
72	Orange	.379	.000
73	Owen	.072	.000
74	Parke	.403	.000
75	Perry	.680	.000
76	Pike	.365	.000
77	Porter	15.284	9.126
78	Posey	1.519	34.763
79	Pulaski	1.999	.000
80	Putnam	.374	.000
81	Randolph	.711	.000
82	Ripley	1.255	1.205
83	Rush	.916	.000
84	St. Joseph	21.082	16.904
85	Scott	.082	3.445
86	Shelby	1.561	3.646
87	Spencer	1.748	.185
88	Starke	.295	1.100
89	Steuben	.684	.000
90	Sullivan	1.016	.196
91	Switzerland	.082	.000
92	Tippecanoe	7.266	36.506
93	Tipton	1.021	.185
94	Union	.414	.831
95	Vanderburgh	11.672	47.262
96	Vermillion	.489	31.129
97	Vigo	5.436	19.875
98	Wabash	1.351	6.785
99	Warren	.422	.000
100	Warrick	6.059	1.673
101	Washington	.085	.000
102	Wayne	3.648	2.435

	Locale	P10_15	A10_15
103	Wells	11.496	.000
104	White	2.204	.000
105	Whitley	1.442	.208
106	Iowa	227.282	135.235
107	Kansas	192.196	131.851
108	Kentucky_E	150.019	172.554
109	Kentucky_W	100.013	115.036
110	Louisiana	235.871	542.186
111	Maine	78.713	35.537
112	Maryland	296.436	310.183
113	Massachusetts	432.694	436.523
114	Michigan_E	267.768	335.701
115	Michigan_W	267.768	335.701
116	Minnesota	386.744	191.560
117	Mississippi	141.130	145.580
118	Missouri	416.731	451.453
119	Montana	53.883	10.862
120	Nebraska	136.037	54.920
121	Nevada	118.403	36.973
122	New Hampshire	72.528	40.452
123	New Jersey	982.869	1401.044
124	New Mexico	70.804	28.724
125	New York	1436.067	1204.371
126	North Carolina	548.360	1018.963
127	North Dakota	57.613	1.106
128	Ohio_N	249.488	306.418
129	Ohio_M	249.488	306.418
130	Ohio_S	249.488	306.418
131	Oklahoma	183.392	75.859
132	Oregon	270.487	97.402
133	Pennsylvania	718.334	653.555
134	Rhode Island	52.928	52.947
135	South Carolina	198.188	817.354
136	South Dakota	56.265	14.209
137	Tennessee	428.735	733.289
138	Texas	1384.412	1860.188
139	Utah	151.535	131.810
140	Vermont	44.388	7.729
141	Virginia	346.544	438.800
142	Washington	420.517	116.944
143	West Virginia	67.477	262.843
144	Wisconsin	379.778	261.364
145	Wyoming	16.927	24.916

	Locale	P11_15	A11_15
1	Alabama	5038.244	5652.760
2	Arizona	7765.671	8540.879
3	Arkansas	2507.498	3565.122
4	California	55602.684	47494.301
5	Colorado	6949.207	5822.093
6	Connecticut	4493.983	4412.762
7	Delaware	806.355	1097.690
8	DC	.000	.000
9	Florida	23246.818	24866.619
10	Georgia	15311.021	11853.304
11	Idaho	1454.018	1910.068
12	Illinois_N	14305.590	10573.712
13	Illinois_S	7152.795	5286.856
14	Adams	15.288	46.001
15	Allen	874.508	465.395
16	Bartholomew	76.134	99.607
17	Benton	2.621	10.671
18	Blackford	6.178	16.267
19	Boone	49.928	76.009
20	Brown	1.028	19.769
21	Carroll	4.604	25.587
22	Cass	28.018	50.922
23	Clark	127.044	135.473
24	Clay	2.892	33.565
25	Clinton	15.678	43.973
26	Crawford	1.195	14.962
27	Daviess	10.603	38.514
28	Dearborn	20.507	73.109
29	Decatur	12.456	31.449
30	DeKalb	34.608	57.394
31	Delaware	109.102	154.075
32	Dubois	125.683	53.209
33	Elkhart	489.703	255.741
34	Fayette	8.016	30.777
35	Floyd	67.731	101.754
36	Fountain	2.546	21.969
37	Franklin	6.831	29.606
38	Fulton	4.845	26.182
39	Gibson	11.031	41.301
40	Grant	44.081	84.819
41	Greene	8.622	42.186
42	Hamilton	437.366	367.537
43	Hancock	23.087	91.316
44	Harrison	23.002	52.298
45	Hendricks	130.409	203.096
46	Henry	20.287	57.479
47	Howard	63.350	108.036
48	Huntington	24.966	52.122
49	Jackson	26.422	52.844
50	Jasper	13.047	39.802
51	Jay	5.946	26.002

	Locale	P11_15	A11_15
52	Jefferson	17.416	42.477
53	Jennings	7.904	38.363
54	Johnson	79.158	193.515
55	Knox	34.760	47.724
56	Kosciusko	54.448	97.760
57	LaGrange	27.557	51.748
58	Lake	531.777	599.525
59	La Porte	84.169	136.169
60	Lawrence	15.806	56.941
61	Madison	59.493	172.292
62	Marion	2307.779	1118.667
63	Marshall	54.358	61.556
64	Martin	2.102	12.372
65	Miami	18.599	43.011
66	Monroe	62.062	172.231
67	Montgomery	16.934	48.921
68	Morgan	39.683	100.740
69	Newton	3.053	18.282
70	Noble	22.066	61.704
71	Ohio	.000	7.078
72	Orange	4.503	25.074
73	Owen	6.530	29.405
74	Parke	6.065	21.138
75	Perry	5.575	22.454
76	Pike	8.454	16.573
77	Porter	143.857	190.800
78	Posey	24.359	35.086
79	Pulaski	10.763	17.250
80	Putnam	5.308	48.254
81	Randolph	10.619	32.884
82	Ripley	40.488	35.256
83	Rush	11.049	21.379
84	St. Joseph	473.276	355.824
85	Scott	6.669	30.716
86	Shelby	72.708	55.325
87	Spencer	6.974	25.288
88	Starke	4.141	29.173
89	Steuben	21.742	43.491
90	Sullivan	6.013	27.895
91	Switzerland	1.242	12.618
92	Tippecanoe	82.744	217.491
93	Tipton	7.183	20.157
94	Union	6.233	9.087
95	Vanderburgh	382.150	220.482
96	Vermillion	1.052	19.959
97	Vigo	96.616	129.700
98	Wabash	15.763	42.912
99	Warren	6.352	10.256
100	Warrick	14.732	76.230
101	Washington	8.944	36.648
102	Wayne	98.465	83.184

	Locale	P11_15	A11_15
103	Wells	11.536	36.825
104	White	13.926	31.712
105	Whitley	19.786	42.601
106	Iowa	3395.361	3690.223
107	Kansas	3959.126	3451.215
108	Kentucky_E	2432.797	3151.172
109	Kentucky_W	1621.864	2100.782
110	Louisiana	4892.568	5706.473
111	Maine	1114.862	1687.063
112	Maryland	6492.441	7461.078
113	Massachusetts	9350.973	8179.791
114	Michigan_E	6536.818	6455.561
115	Michigan_W	6536.818	6455.561
116	Minnesota	9755.333	6773.741
117	Mississippi	2126.210	3631.902
118	Missouri	7740.374	7338.395
119	Montana	880.080	1216.711
120	Nebraska	2201.302	2175.329
121	Nevada	2847.220	3332.137
122	New Hampshire	1686.220	1730.387
123	New Jersey	15797.549	11157.999
124	New Mexico	1405.437	2458.434
125	New York	21116.297	23717.837
126	North Carolina	12040.556	11752.843
127	North Dakota	820.370	793.055
128	Ohio_N	540.139	4754.870
129	Ohio_M	540.139	4754.870
130	Ohio_S	540.139	4754.870
131	Oklahoma	3834.119	4417.452
132	Oregon	5256.115	4783.255
133	Pennsylvania	14643.124	15619.831
134	Rhode Island	1327.021	1375.613
135	South Carolina	4200.803	5511.812
136	South Dakota	866.882	969.761
137	Tennessee	8217.335	7756.722
138	Texas	35516.645	31063.147
139	Utah	3449.441	3260.431
140	Vermont	533.071	815.135
141	Virginia	7707.781	10081.722
142	Washington	8137.800	8259.161
143	West Virginia	1506.797	2263.045
144	Wisconsin	7359.903	7128.574
145	Wyoming	409.083	645.948

	Locale	P12_15	A12_15
1	Alabama	45609.169	53289.049
2	Arizona	18167.780	21416.751
3	Arkansas	41493.853	37161.570
4	California	197961.961	199535.734
5	Colorado	18301.052	29373.075
6	Connecticut	15851.254	12431.448
7	Delaware	10000.044	6323.565
8	DC	.000	.000
9	Florida	53832.342	56419.026
10	Georgia	132764.865	134548.548
11	Idaho	11250.464	9665.199
12	Illinois_N	71270.480	57650.106
13	Illinois_S	35635.240	28825.053
14	Adams	1155.725	360.412
15	Allen	5262.995	3880.660
16	Bartholomew	1357.953	1348.978
17	Benton	49.285	53.516
18	Blackford	317.376	22.232
19	Boone	17.474	5.423
20	Brown	4.616	4.133
21	Carroll	841.064	752.989
22	Cass	1427.560	734.113
23	Clark	579.090	349.819
24	Clay	157.562	13.640
25	Clinton	1158.044	1025.803
26	Crawford	.000	.000
27	Daviess	554.042	446.341
28	Dearborn	69.944	1875.336
29	Decatur	505.971	165.264
30	DeKalb	2098.370	2553.444
31	Delaware	291.250	788.176
32	Dubois	1327.270	360.797
33	Elkhart	6534.868	2336.288
34	Fayette	.000	52.604
35	Floyd	1735.872	335.366
36	Fountain	27.426	726.212
37	Franklin	173.688	4.575
38	Fulton	193.818	440.341
39	Gibson	541.088	167.919
40	Grant	584.345	311.557
41	Greene	180.391	324.890
42	Hamilton	1694.997	955.934
43	Hancock	26.314	17.623
44	Harrison	595.170	366.224
45	Hendricks	425.694	566.891
46	Henry	230.815	419.095
47	Howard	471.157	898.626
48	Huntington	501.362	355.042
49	Jackson	430.218	501.206
50	Jasper	162.305	96.702
51	Jay	338.606	293.119

	Locale	P12_15	A12_15
52	Jefferson	182.427	54.290
53	Jennings	1153.384	595.172
54	Johnson	906.216	397.862
55	Knox	64.486	378.620
56	Kosciusko	1462.136	2202.499
57	LaGrange	826.804	106.252
58	Lake	1073.633	20965.886
59	La Porte	948.686	1741.787
60	Lawrence	229.473	1745.312
61	Madison	664.136	558.453
62	Marion	3720.825	8470.308
63	Marshall	2514.811	1061.260
64	Martin	25.733	176.652
65	Miami	339.381	35.003
66	Monroe	395.026	271.112
67	Montgomery	849.776	888.774
68	Morgan	113.659	87.581
69	Newton	391.983	167.684
70	Noble	2382.799	1313.014
71	Ohio	.000	.000
72	Orange	175.099	44.517
73	Owen	89.856	86.557
74	Parke	229.062	91.685
75	Perry	71.222	407.575
76	Pike	.000	58.251
77	Porter	443.586	8088.251
78	Posey	326.421	106.437
79	Pulaski	32.684	198.921
80	Putnam	1060.205	4.267
81	Randolph	83.134	303.149
82	Ripley	13.982	26.342
83	Rush	71.135	353.143
84	St. Joseph	3063.579	2244.952
85	Scott	1347.020	531.850
86	Shelby	1822.945	573.751
87	Spencer	342.942	184.205
88	Starke	145.995	.000
89	Steuben	777.762	672.373
90	Sullivan	156.193	.000
91	Switzerland	183.879	.000
92	Tippecanoe	1040.983	2322.225
93	Tipton	78.371	125.159
94	Union	.000	.000
95	Vanderburgh	5052.530	2599.520
96	Vermillion	3.436	3.076
97	Vigo	1606.205	474.026
98	Wabash	181.571	706.178
99	Warren	13.710	4.255
100	Warrick	22.562	3888.491
101	Washington	236.091	58.548
102	Wayne	1209.429	1079.989

	Locale	P12_15	A12_15
103	Wells	981.113	424.616
104	White	340.475	86.614
105	Whitley	438.189	627.869
106	Iowa	37133.087	32466.364
107	Kansas	27952.793	19685.184
108	Kentucky_E	19728.245	27958.120
109	Kentucky_W	13152.163	18638.746
110	Louisiana	13991.022	17493.856
111	Maine	7945.193	7607.266
112	Maryland	17865.590	21121.932
113	Massachusetts	37316.418	26905.538
114	Michigan_E	39866.190	30729.064
115	Michigan_W	39866.190	30729.064
116	Minnesota	43754.642	33881.593
117	Mississippi	28232.430	21789.327
118	Missouri	41708.455	41811.303
119	Montana	1497.259	3245.300
120	Nebraska	22381.622	17233.757
121	Nevada	7678.576	6918.664
122	New Hampshire	9490.159	8519.343
123	New Jersey	51073.217	38247.699
124	New Mexico	2670.942	4136.513
125	New York	66535.822	64092.875
126	North Carolina	110376.681	108321.149
127	North Dakota	3404.873	2900.990
128	Ohio_N	36817.743	36437.510
129	Ohio_M	36817.743	36437.510
130	Ohio_S	36817.743	36437.510
131	Oklahoma	20982.821	17308.897
132	Oregon	18877.004	29082.711
133	Pennsylvania	87640.433	116910.907
134	Rhode Island	8165.993	7108.689
135	South Carolina	48439.231	35271.372
136	South Dakota	6203.396	5401.279
137	Tennessee	59981.986	50462.750
138	Texas	122163.025	121559.962
139	Utah	12622.206	17042.119
140	Vermont	3947.744	3026.832
141	Virginia	46766.312	60516.325
142	Washington	32175.465	40856.258
143	West Virginia	4983.853	14347.734
144	Wisconsin	62237.094	62336.263
145	Wyoming	722.161	909.497

	Locale	P13_15	A13_15
1	Alabama	4173.965	8867.229
2	Arizona	2797.373	2215.244
3	Arkansas	2294.735	6567.475
4	California	21812.524	18433.549
5	Colorado	2151.539	1651.486
6	Connecticut	4862.380	2891.262
7	Delaware	2440.477	938.063
8	DC	.000	.000
9	Florida	7550.543	7379.025
10	Georgia	8507.568	16401.905
11	Idaho	1113.387	1111.454
12	Illinois_N	10842.354	9188.901
13	Illinois_S	5421.177	4594.451
14	Adams	55.766	.000
15	Allen	118.845	419.223
16	Bartholomew	55.297	339.924
17	Benton	.000	76.755
18	Blackford	.000	177.864
19	Boone	.000	6.096
20	Brown	2.915	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	217.359	30.611
24	Clay	17.566	.000
25	Clinton	52.908	28.910
26	Crawford	.000	.000
27	Daviess	18.592	.000
28	Dearborn	3.588	.000
29	Decatur	.000	.000
30	DeKalb	73.904	91.205
31	Delaware	25.597	219.330
32	Dubois	18.412	104.660
33	Elkhart	555.516	379.434
34	Fayette	.000	.000
35	Floyd	32.263	88.219
36	Fountain	2.887	.000
37	Franklin	.000	.000
38	Fulton	2.922	27.941
39	Gibson	.000	.000
40	Grant	24.476	170.815
41	Greene	.000	.000
42	Hamilton	23.474	.000
43	Hancock	.000	109.122
44	Harrison	17.459	.000
45	Hendricks	4.481	.000
46	Henry	.000	25.577
47	Howard	.000	.000
48	Huntington	18.956	88.116
49	Jackson	51.602	223.225
50	Jasper	.000	.000
51	Jay	.000	26.422

	Locale	P13_15	A13_15
52	Jefferson	18.398	.000
53	Jennings	3.201	30.608
54	Johnson	23.252	108.087
55	Knox	.000	25.814
56	Kosciusko	100.672	4.833
57	LaGrange	3.228	.000
58	Lake	432.015	189.204
59	La Porte	95.264	223.382
60	Lawrence	.000	.000
61	Madison	110.176	81.943
62	Marion	1805.114	1333.419
63	Marshall	40.964	232.518
64	Martin	.000	.000
65	Miami	16.222	161.587
66	Monroe	52.907	90.528
67	Montgomery	52.503	83.676
68	Morgan	129.794	.000
69	Newton	2.884	27.581
70	Noble	66.555	85.937
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	139.135	.000
78	Posey	529.986	.000
79	Pulaski	.000	4.767
80	Putnam	.000	.000
81	Randolph	.000	.000
82	Ripley	18.363	85.360
83	Rush	.000	26.043
84	St. Joseph	257.710	268.879
85	Scott	52.514	.000
86	Shelby	55.579	4.613
87	Spencer	2.824	.000
88	Starke	16.770	26.727
89	Steuben	.000	28.609
90	Sullivan	2.990	.000
91	Switzerland	.000	5.610
92	Tippecanoe	556.558	32.412
93	Tipton	2.828	27.043
94	Union	12.663	.000
95	Vanderburgh	720.543	306.686
96	Vermillion	474.579	75.635
97	Vigo	302.999	245.201
98	Wabash	103.435	164.847
99	Warren	.000	.000
100	Warrick	25.502	5.080
101	Washington	.000	.000
102	Wayne	37.127	101.313

	Locale	P13_15	A13_15
103	Wells	.000	30.359
104	White	.000	27.756
105	Whitley	3.169	88.376
106	Iowa	2061.738	2625.416
107	Kansas	2010.148	1635.946
108	Kentucky_E	2630.686	3064.232
109	Kentucky_W	1753.790	2042.822
110	Louisiana	8265.932	5324.529
111	Maine	541.780	5808.832
112	Maryland	4728.922	3643.567
113	Massachusetts	6655.049	9271.378
114	Michigan_E	5117.950	4596.260
115	Michigan_W	5117.950	4596.260
116	Minnesota	2920.437	8113.253
117	Mississippi	2219.445	4192.340
118	Missouri	6882.659	6410.707
119	Montana	165.603	376.323
120	Nebraska	837.286	792.412
121	Nevada	563.667	417.283
122	New Hampshire	616.707	1955.062
123	New Jersey	21359.717	8656.419
124	New Mexico	437.915	282.625
125	New York	18361.317	12023.417
126	North Carolina	15534.670	11904.519
127	North Dakota	16.864	26.876
128	Ohio_N	4671.520	4647.857
129	Ohio_M	4671.520	4647.857
130	Ohio_S	4671.520	4647.857
131	Oklahoma	1156.514	1848.946
132	Oregon	1484.943	4222.178
133	Pennsylvania	9963.826	15170.462
134	Rhode Island	807.201	972.850
135	South Carolina	12461.030	7211.003
136	South Dakota	216.630	314.647
137	Tennessee	11179.410	8866.334
138	Texas	28359.621	12188.599
139	Utah	2009.519	1539.233
140	Vermont	117.833	876.375
141	Virginia	6689.757	8216.779
142	Washington	1782.873	7773.341
143	West Virginia	4007.186	284.418
144	Wisconsin	3984.651	20744.887
145	Wyoming	379.855	4.843

	Locale	P14_15	A14_15
1	Alabama	719.258	6085.010
2	Arizona	21556.491	2529.474
3	Arkansas	761.762	2606.676
4	California	148.260	7701.755
5	Colorado	129.758	654.465
6	Connecticut	732.235	1562.304
7	Delaware	811.818	230.333
8	DC	.000	.000
9	Florida	655.580	1635.178
10	Georgia	857.216	2076.885
11	Idaho	393.148	59.473
12	Illinois_N	284.553	6859.745
13	Illinois_S	142.277	3429.872
14	Adams	.000	49.277
15	Allen	.000	693.671
16	Bartholomew	.000	199.359
17	Benton	.000	14.591
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	.000	36.490
24	Clay	.000	2.587
25	Clinton	.000	.000
26	Crawford	.000	.000
27	Daviess	.000	.000
28	Dearborn	.000	.000
29	Decatur	.000	2.622
30	DeKalb	.000	688.593
31	Delaware	.000	190.792
32	Dubois	.000	.000
33	Elkhart	.000	337.162
34	Fayette	.000	14.342
35	Floyd	.000	2.795
36	Fountain	.000	191.302
37	Franklin	.000	.000
38	Fulton	.000	96.822
39	Gibson	.000	.000
40	Grant	.000	39.841
41	Greene	.000	43.946
42	Hamilton	.000	157.641
43	Hancock	.000	3.343
44	Harrison	.000	.000
45	Hendricks	.000	69.290
46	Henry	.000	88.633
47	Howard	.000	192.888
48	Huntington	.000	47.180
49	Jackson	.000	128.977
50	Jasper	.000	.000
51	Jay	.000	.000

	Locale	P14_15	A14_15
52	Jefferson	.000	2.710
53	Jennings	.000	16.971
54	Johnson	.000	102.734
55	Knox	.000	89.454
56	Kosciusko	.000	468.907
57	LaGrange	.000	2.852
58	Lake	.000	5355.970
59	La Porte	.000	403.350
60	Lawrence	.000	433.029
61	Madison	.000	59.972
62	Marion	.000	961.682
63	Marshall	.000	106.365
64	Martin	.000	41.882
65	Miami	.000	.000
66	Monroe	.000	.000
67	Montgomery	.000	198.830
68	Morgan	.000	18.351
69	Newton	.000	44.603
70	Noble	.000	203.387
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	90.281
76	Pike	.000	15.882
77	Porter	.000	2164.160
78	Posey	.000	.000
79	Pulaski	.000	46.256
80	Putnam	.000	.000
81	Randolph	.000	74.432
82	Ripley	.000	.000
83	Rush	.000	90.248
84	St. Joseph	.000	462.331
85	Scott	.000	2.652
86	Shelby	.000	136.848
87	Spencer	.000	43.672
88	Starke	.000	.000
89	Steuben	.000	132.447
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	.000	524.145
93	Tipton	.000	14.994
94	Union	.000	.000
95	Vanderburgh	.000	47.535
96	Vermillion	.000	.000
97	Vigo	.000	97.479
98	Wabash	.000	182.798
99	Warren	.000	.000
100	Warrick	.000	1056.309
101	Washington	.000	2.732
102	Wayne	.000	216.430

	Locale	P14_15	A14_15
103	Wells	.000	49.094
104	White	.000	15.389
105	Whitley	.000	169.959
106	Iowa	709.393	2563.560
107	Kansas	727.853	736.241
108	Kentucky_E	443.071	2509.627
109	Kentucky_W	295.381	1673.084
110	Louisiana	717.366	1026.601
111	Maine	747.250	205.174
112	Maryland	804.039	2177.939
113	Massachusetts	730.179	1594.005
114	Michigan_E	12824.461	4986.558
115	Michigan_W	12824.461	4986.558
116	Minnesota	88748.175	2190.881
117	Mississippi	726.872	873.890
118	Missouri	3672.849	3488.200
119	Montana	880.562	337.180
120	Nebraska	716.902	308.385
121	Nevada	136.820	563.799
122	New Hampshire	.000	1057.929
123	New Jersey	754.532	2810.932
124	New Mexico	893.889	493.212
125	New York	2270.342	4566.234
126	North Carolina	853.089	2461.963
127	North Dakota	678.391	31.045
128	Ohio_N	234.332	6397.648
129	Ohio_M	234.332	6397.648
130	Ohio_S	234.332	6397.648
131	Oklahoma	727.891	1428.324
132	Oregon	1372.660	3198.662
133	Pennsylvania	709.950	16204.619
134	Rhode Island	247.365	935.203
135	South Carolina	.000	2040.899
136	South Dakota	724.205	163.585
137	Tennessee	783.928	4897.255
138	Texas	1975.022	9339.498
139	Utah	854.838	2139.660
140	Vermont	55.714	74.690
141	Virginia	820.477	2008.598
142	Washington	808.890	3875.774
143	West Virginia	691.407	2855.971
144	Wisconsin	752.323	7406.671
145	Wyoming	733.480	33.566

	Locale	P15_15	A15_15
1	Alabama	66044.889	57961.569
2	Arizona	174637.097	86157.460
3	Arkansas	12073.258	51069.420
4	California	77331.661	174691.678
5	Colorado	46556.196	37365.638
6	Connecticut	7128.551	10744.533
7	Delaware	1844.107	9802.496
8	DC	.000	.000
9	Florida	91395.960	78924.487
10	Georgia	69777.676	90809.433
11	Idaho	26504.530	27911.220
12	Illinois_N	45077.418	66757.080
13	Illinois_S	22538.709	33378.540
14	Adams	599.032	573.271
15	Allen	843.996	1866.380
16	Bartholomew	.000	1163.733
17	Benton	.000	.000
18	Blackford	81.887	79.973
19	Boone	119.844	62.735
20	Brown	.000	8.278
21	Carroll	570.532	1755.114
22	Cass	531.325	1634.504
23	Clark	1755.157	1021.492
24	Clay	550.364	246.533
25	Clinton	.000	1793.387
26	Crawford	1856.867	803.726
27	Daviess	3640.681	2469.811
28	Dearborn	674.538	302.156
29	Decatur	557.787	553.179
30	DeKalb	471.292	259.708
31	Delaware	3538.076	1638.309
32	Dubois	576.863	945.044
33	Elkhart	596.733	843.289
34	Fayette	84.753	36.685
35	Floyd	.000	651.173
36	Fountain	.000	49.180
37	Franklin	101.115	52.931
38	Fulton	91.546	168.228
39	Gibson	4175.994	2143.863
40	Grant	484.326	403.507
41	Greene	1558.165	977.050
42	Hamilton	2145.042	1076.211
43	Hancock	118.519	62.042
44	Harrison	881.889	1115.229
45	Hendricks	842.324	951.150
46	Henry	83.803	81.845
47	Howard	547.127	368.225
48	Huntington	742.386	657.755
49	Jackson	92.385	70.131
50	Jasper	94.980	234.797
51	Jay	519.428	573.198

	Locale	P15_15	A15_15
52	Jefferson	.000	17.414
53	Jennings	601.718	260.448
54	Johnson	121.420	60.258
55	Knox	3992.138	1829.143
56	Kosciusko	95.004	829.836
57	LaGrange	101.134	206.929
58	Lake	544.317	1163.877
59	La Porte	243.465	563.859
60	Lawrence	552.731	286.954
61	Madison	552.305	864.767
62	Marion	1634.823	3974.921
63	Marshall	98.725	424.799
64	Martin	.000	46.144
65	Miami	508.255	266.057
66	Monroe	1413.561	701.249
67	Montgomery	93.997	360.155
68	Morgan	650.647	291.454
69	Newton	542.214	242.882
70	Noble	96.538	697.991
71	Ohio	.000	.000
72	Orange	488.745	259.871
73	Owen	96.658	50.598
74	Parke	.000	142.379
75	Perry	.000	7.736
76	Pike	563.109	243.736
77	Porter	94.151	315.519
78	Posey	94.885	92.668
79	Pulaski	562.312	301.999
80	Putnam	584.578	261.574
81	Randolph	86.527	97.837
82	Ripley	575.338	257.720
83	Rush	85.330	57.041
84	St. Joseph	563.319	834.360
85	Scott	94.016	360.228
86	Shelby	1015.772	583.513
87	Spencer	530.899	277.911
88	Starke	.000	.000
89	Steuben	93.734	254.654
90	Sullivan	3513.265	1520.682
91	Switzerland	661.761	286.437
92	Tippecanoe	637.175	895.629
93	Tipton	.000	140.533
94	Union	.000	.000
95	Vanderburgh	1685.430	3787.222
96	Vermillion	84.965	42.937
97	Vigo	3456.254	1703.166
98	Wabash	86.418	84.399
99	Warren	564.161	252.713
100	Warrick	3745.285	1621.109
101	Washington	96.868	94.604
102	Wayne	83.684	570.925

	Locale	P15_15	A15_15
103	Wells	99.469	504.627
104	White	90.940	73.979
105	Whitley	.000	8.998
106	Iowa	16114.410	45615.167
107	Kansas	12187.729	31593.921
108	Kentucky_E	109337.170	57931.608
109	Kentucky_W	72891.452	38621.072
110	Louisiana	15438.837	21436.325
111	Maine	581.978	5820.113
112	Maryland	19224.552	24444.149
113	Massachusetts	16586.580	25724.616
114	Michigan_E	19076.853	22261.101
115	Michigan_W	19076.853	22261.101
116	Minnesota	76941.998	73161.759
117	Mississippi	9944.616	27143.956
118	Missouri	40933.295	51260.473
119	Montana	27234.494	13761.225
120	Nebraska	6048.710	31548.292
121	Nevada	159090.889	72626.448
122	New Hampshire	3935.747	3805.730
123	New Jersey	17139.782	33886.304
124	New Mexico	55490.287	27706.316
125	New York	29146.572	53190.116
126	North Carolina	36619.985	68625.557
127	North Dakota	13939.609	10352.883
128	Ohio_N	23977.981	24068.281
129	Ohio_M	23977.981	24068.281
130	Ohio_S	23977.981	24068.281
131	Oklahoma	19038.424	20710.379
132	Oregon	20437.291	27526.889
133	Pennsylvania	126721.861	118805.366
134	Rhode Island	1054.967	2928.559
135	South Carolina	18028.894	22516.133
136	South Dakota	14881.005	13300.449
137	Tennessee	37131.263	49534.761
138	Texas	93701.285	129378.500
139	Utah	54559.875	35709.877
140	Vermont	7383.576	6564.159
141	Virginia	111496.421	81816.874
142	Washington	30575.287	45224.648
143	West Virginia	150785.088	69544.314
144	Wisconsin	17089.605	58383.110
145	Wyoming	80242.159	35379.191

	Locale	P17_15	A17_15
1	Alabama	38214.104	32380.636
2	Arizona	7500.062	22636.659
3	Arkansas	16307.652	16344.000
4	California	215301.335	216714.247
5	Colorado	7958.962	16920.216
6	Connecticut	6801.744	13226.993
7	Delaware	13933.349	9695.734
8	DC	.000	.000
9	Florida	17728.015	63756.520
10	Georgia	19634.280	36243.220
11	Idaho	3100.820	5807.301
12	Illinois_N	58334.666	53690.270
13	Illinois_S	29167.333	26845.135
14	Adams	157.718	183.311
15	Allen	972.512	1528.510
16	Bartholomew	.000	218.229
17	Benton	.000	23.379
18	Blackford	.000	35.639
19	Boone	.000	166.529
20	Brown	.000	43.313
21	Carroll	.000	56.059
22	Cass	.000	111.564
23	Clark	1600.226	1134.147
24	Clay	.000	73.538
25	Clinton	.000	96.341
26	Crawford	.000	32.781
27	Daviess	153.368	164.633
28	Dearborn	177.598	253.105
29	Decatur	.000	68.901
30	DeKalb	.000	125.744
31	Delaware	.000	337.562
32	Dubois	.000	116.575
33	Elkhart	157.112	642.512
34	Fayette	.000	67.430
35	Floyd	.000	222.931
36	Fountain	.000	48.131
37	Franklin	958.405	566.362
38	Fulton	.000	57.363
39	Gibson	.000	90.487
40	Grant	.000	185.830
41	Greene	.000	92.425
42	Hamilton	193.633	906.556
43	Hancock	.000	200.064
44	Harrison	1058.085	668.236
45	Hendricks	.000	444.962
46	Henry	.000	125.931
47	Howard	.000	236.695
48	Huntington	156.369	196.015
49	Jackson	.000	115.774
50	Jasper	.000	87.201
51	Jay	136.759	128.529

	Locale	P17_15	A17_15
52	Jefferson	.000	93.064
53	Jennings	950.551	581.437
54	Johnson	.000	423.971
55	Knox	133.612	174.473
56	Kosciusko	150.081	292.713
57	LaGrange	.000	113.373
58	Lake	30941.075	17503.829
59	La Porte	142.448	372.870
60	Lawrence	831.585	559.890
61	Madison	.000	377.473
62	Marion	1756.151	3369.808
63	Marshall	935.756	624.509
64	Martin	.000	27.105
65	Miami	.000	94.232
66	Monroe	963.903	881.716
67	Montgomery	.000	107.181
68	Morgan	.000	220.711
69	Newton	.000	40.054
70	Noble	.000	135.186
71	Ohio	.000	15.507
72	Orange	.000	54.934
73	Owen	.000	64.423
74	Parke	.000	46.311
75	Perry	.000	49.194
76	Pike	.000	36.309
77	Porter	.000	418.022
78	Posey	5620.954	3018.109
79	Pulaski	.000	37.794
80	Putnam	.000	105.718
81	Randolph	136.689	143.570
82	Ripley	151.479	156.506
83	Rush	.000	46.839
84	St. Joseph	148.315	857.179
85	Scott	148.520	145.010
86	Shelby	.000	121.212
87	Spencer	.000	55.402
88	Starke	.000	63.914
89	Steuben	148.075	172.766
90	Sullivan	.000	61.116
91	Switzerland	.000	27.646
92	Tippecanoe	167.760	564.282
93	Tipton	.000	44.162
94	Union	.000	19.910
95	Vanderburgh	.000	483.053
96	Vermillion	.000	43.729
97	Vigo	.000	284.158
98	Wabash	136.517	165.450
99	Warren	.000	22.470
100	Warrick	.000	167.013
101	Washington	.000	80.293
102	Wayne	.000	182.247

	Locale	P17_15	A17_15
103	Wells	.000	80.679
104	White	.000	69.477
105	Whitley	.000	93.334
106	Iowa	2545.637	9416.921
107	Kansas	41357.256	29201.984
108	Kentucky_E	11574.825	12960.564
109	Kentucky_W	7716.550	8640.376
110	Louisiana	182800.957	108155.333
111	Maine	2681.486	5099.297
112	Maryland	17872.199	25698.292
113	Massachusetts	15721.363	26147.461
114	Michigan_E	15263.120	22130.077
115	Michigan_W	15263.120	22130.077
116	Minnesota	31278.190	31207.275
117	Mississippi	28736.677	22993.962
118	Missouri	21513.792	27335.019
119	Montana	12652.928	9286.497
120	Nebraska	147.005	4842.835
121	Nevada	1291.581	7976.193
122	New Hampshire	2553.282	5127.131
123	New Jersey	54523.690	52976.235
124	New Mexico	12249.916	11796.099
125	New York	23123.235	64062.784
126	North Carolina	12070.219	32065.125
127	North Dakota	2434.388	3011.326
128	Ohio_N	27081.591	24588.218
129	Ohio_M	27081.591	24588.218
130	Ohio_S	27081.591	24588.218
131	Oklahoma	37971.272	29547.143
132	Oregon	11828.612	16669.080
133	Pennsylvania	105253.770	89296.828
134	Rhode Island	152.895	3093.825
135	South Carolina	6103.015	15269.274
136	South Dakota	148.502	2202.348
137	Tennessee	21588.575	28290.660
138	Texas	395073.304	274783.451
139	Utah	26854.312	21195.135
140	Vermont	933.123	2274.142
141	Virginia	11305.951	28003.964
142	Washington	33787.208	35774.548
143	West Virginia	5600.186	7888.462
144	Wisconsin	6448.406	18992.156
145	Wyoming	12573.798	7994.612

	Locale	P18_15	A18_15
1	Alabama	18111.504	16799.556
2	Arizona	3554.640	4522.254
3	Arkansas	7728.982	7487.142
4	California	102041.671	93594.789
5	Colorado	3772.135	4292.980
6	Connecticut	3223.674	5541.378
7	Delaware	6603.685	6694.228
8	DC	.000	.000
9	Florida	8402.160	11270.450
10	Georgia	9305.631	12572.222
11	Idaho	1469.628	1842.950
12	Illinois_N	27647.608	28413.640
13	Illinois_S	13823.804	14206.820
14	Adams	74.750	93.203
15	Allen	460.920	435.349
16	Bartholomew	.000	34.246
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	1.805
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	758.424	729.852
24	Clay	.000	10.879
25	Clinton	.000	32.766
26	Crawford	.000	.000
27	Daviess	72.688	68.563
28	Dearborn	84.172	68.284
29	Decatur	.000	.000
30	DeKalb	.000	45.770
31	Delaware	.000	15.852
32	Dubois	.000	11.403
33	Elkhart	74.463	402.478
34	Fayette	.000	.000
35	Floyd	.000	19.981
36	Fountain	.000	1.788
37	Franklin	454.234	356.500
38	Fulton	.000	1.810
39	Gibson	.000	.000
40	Grant	.000	15.158
41	Greene	.000	.000
42	Hamilton	91.772	86.564
43	Hancock	.000	.000
44	Harrison	501.477	404.390
45	Hendricks	.000	2.775
46	Henry	.000	.000
47	Howard	.000	.000
48	Huntington	74.111	69.905
49	Jackson	.000	31.958
50	Jasper	.000	.000
51	Jay	64.817	50.871

	Locale	P18_15	A18_15
52	Jefferson	.000	11.394
53	Jennings	450.512	355.561
54	Johnson	.000	14.400
55	Knox	63.325	49.700
56	Kosciusko	71.130	118.173
57	LaGrange	.000	1.999
58	Lake	14664.465	11776.767
59	La Porte	67.513	111.985
60	Lawrence	394.128	309.326
61	Madison	.000	68.233
62	Marion	832.324	1771.164
63	Marshall	443.500	373.444
64	Martin	.000	.000
65	Miami	.000	10.047
66	Monroe	456.840	391.311
67	Montgomery	.000	32.516
68	Morgan	.000	80.383
69	Newton	.000	1.786
70	Noble	.000	41.218
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	.000	86.168
78	Posey	2664.041	2419.063
79	Pulaski	.000	.000
80	Putnam	.000	.000
81	Randolph	64.783	50.844
82	Ripley	71.793	67.719
83	Rush	.000	.000
84	St. Joseph	70.294	214.771
85	Scott	70.391	87.768
86	Shelby	.000	34.420
87	Spencer	.000	1.749
88	Starke	.000	10.386
89	Steuben	70.180	55.080
90	Sullivan	.000	1.852
91	Switzerland	.000	.000
92	Tippecanoe	79.510	407.084
93	Tipton	.000	1.751
94	Union	.000	7.843
95	Vanderburgh	.000	446.239
96	Vermillion	.000	293.912
97	Vigo	.000	187.650
98	Wabash	64.702	114.839
99	Warren	.000	.000
100	Warrick	.000	15.794
101	Washington	.000	.000
102	Wayne	.000	22.993

	Locale	P18_15	A18_15
103	Wells	.000	.000
104	White	.000	.000
105	Whitley	.000	1.962
106	Iowa	1206.500	2223.760
107	Kansas	19601.195	16628.648
108	Kentucky_E	5485.867	5934.721
109	Kentucky_W	3657.245	3946.480
110	Louisiana	86638.176	73116.021
111	Maine	1270.886	1332.968
112	Maryland	8470.496	9576.626
113	Massachusetts	7451.111	9969.444
114	Michigan_E	7233.928	8847.050
115	Michigan_W	7233.928	8847.050
116	Minnesota	14824.240	13443.268
117	Mississippi	13619.695	12063.765
118	Missouri	10196.422	12265.026
119	Montana	5996.832	4809.095
120	Nebraska	69.673	573.221
121	Nevada	612.143	829.517
122	New Hampshire	1210.123	1331.682
123	New Jersey	25841.402	33509.568
124	New Mexico	5805.825	4827.831
125	New York	10959.214	19972.537
126	North Carolina	5720.658	14110.555
127	North Dakota	1153.774	915.968
128	Ohio_N	12835.270	12966.712
129	Ohio_M	12835.270	12966.712
130	Ohio_S	12835.270	12966.712
131	Oklahoma	17996.414	14840.493
132	Oregon	5606.149	5319.553
133	Pennsylvania	49884.830	45322.156
134	Rhode Island	72.465	556.780
135	South Carolina	2892.512	9987.387
136	South Dakota	70.382	189.400
137	Tennessee	10231.865	14953.863
138	Texas	187244.264	164519.620
139	Utah	12727.552	11233.568
140	Vermont	442.252	420.071
141	Virginia	5358.435	8348.529
142	Washington	16013.385	13672.048
143	West Virginia	2654.198	4564.802
144	Wisconsin	3056.210	4866.360
145	Wyoming	5959.328	4912.349

	Locale	P19_15	A19_15
1	Alabama	18064.491	17391.191
2	Arizona	5126.908	5623.494
3	Arkansas	8119.463	7995.350
4	California	100414.551	96079.555
5	Colorado	4787.439	5054.740
6	Connecticut	6508.696	7698.157
7	Delaware	7320.936	7367.403
8	DC	.000	.000
9	Florida	12868.737	14340.763
10	Georgia	14368.517	16044.954
11	Idaho	2085.163	2276.754
12	Illinois_N	31150.046	31543.180
13	Illinois_S	15575.023	15771.590
14	Adams	105.367	114.837
15	Allen	469.815	456.692
16	Bartholomew	44.208	61.783
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	2.331	3.257
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	790.491	775.828
24	Clay	14.044	19.627
25	Clinton	42.298	59.114
26	Crawford	.000	.000
27	Daviess	73.971	71.854
28	Dearborn	71.314	63.160
29	Decatur	.000	.000
30	DeKalb	59.085	82.574
31	Delaware	20.464	28.599
32	Dubois	14.720	20.572
33	Elkhart	504.670	673.009
34	Fayette	.000	.000
35	Floyd	25.793	36.048
36	Fountain	2.308	3.225
37	Franklin	369.365	319.207
38	Fulton	2.336	3.265
39	Gibson	.000	.000
40	Grant	19.568	27.347
41	Greene	.000	.000
42	Hamilton	93.392	90.719
43	Hancock	.000	.000
44	Harrison	421.738	371.913
45	Hendricks	3.582	5.006
46	Henry	.000	.000
47	Howard	.000	.000
48	Huntington	75.419	73.260
49	Jackson	41.255	57.656
50	Jasper	.000	.000
51	Jay	52.706	45.549

	Locale	P19_15	A19_15
52	Jefferson	14.709	20.556
53	Jennings	368.896	320.167
54	Johnson	18.590	25.980
55	Knox	51.493	44.501
56	Kosciusko	138.325	162.468
57	LaGrange	2.581	3.607
58	Lake	12269.917	10787.931
59	La Porte	131.060	153.883
60	Lawrence	320.489	276.968
61	Madison	88.083	123.101
62	Marion	2119.951	2601.769
63	Marshall	393.385	357.432
64	Martin	.000	.000
65	Miami	12.969	18.125
66	Monroe	413.781	380.151
67	Montgomery	41.975	58.662
68	Morgan	103.767	145.020
69	Newton	2.306	3.223
70	Noble	53.209	74.362
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	111.235	155.456
78	Posey	2589.996	2464.272
79	Pulaski	.000	.000
80	Putnam	.000	.000
81	Randolph	52.679	45.526
82	Ripley	73.060	70.969
83	Rush	.000	.000
84	St. Joseph	263.192	337.339
85	Scott	99.222	108.140
86	Shelby	44.434	62.099
87	Spencer	2.258	3.155
88	Starke	13.407	18.737
89	Steuben	57.067	49.318
90	Sullivan	2.391	3.341
91	Switzerland	.000	.000
92	Tippecanoe	509.607	677.720
93	Tipton	2.261	3.160
94	Union	10.124	14.149
95	Vanderburgh	576.054	805.067
96	Vermillion	379.413	530.251
97	Vigo	242.239	338.543
98	Wabash	135.306	161.036
99	Warren	.000	.000
100	Warrick	20.388	28.493
101	Washington	.000	.000
102	Wayne	29.682	41.482

	Locale	P19_15	A19_15
103	Wells	.000	.000
104	White	.000	.000
105	Whitley	2.533	3.540
106	Iowa	2629.379	3151.443
107	Kansas	17545.934	16020.403
108	Kentucky_E	6564.040	6794.394
109	Kentucky_W	4376.026	4529.596
110	Louisiana	77058.944	70119.284
111	Maine	1466.569	1498.430
112	Maryland	10668.497	11236.170
113	Massachusetts	11379.462	12671.887
114	Michigan_E	9973.988	10801.853
115	Michigan_W	9973.988	10801.853
116	Minnesota	14389.264	13680.540
117	Mississippi	12849.355	12050.841
118	Missouri	13793.802	14855.423
119	Montana	5008.769	4399.215
120	Nebraska	726.042	984.467
121	Nevada	948.405	1059.963
122	New Hampshire	1477.062	1539.447
123	New Jersey	38089.657	42025.010
124	New Mexico	5071.156	4569.243
125	New York	23590.943	28216.640
126	North Carolina	17071.341	21377.092
127	North Dakota	951.683	829.639
128	Ohio_N	14171.858	14239.316
129	Ohio_M	14171.858	14239.316
130	Ohio_S	14171.858	14239.316
131	Oklahoma	15558.536	13938.896
132	Oregon	5745.858	5598.775
133	Pennsylvania	48530.071	46188.477
134	Rhode Island	704.260	952.814
135	South Carolina	12314.321	15955.457
136	South Dakota	230.422	291.502
137	Tennessee	17257.757	19681.118
138	Texas	174931.976	163269.539
139	Utah	11956.070	11189.348
140	Vermont	453.825	442.441
141	Virginia	9705.533	11240.069
142	Washington	14446.776	13245.186
143	West Virginia	5361.918	6342.452
144	Wisconsin	5670.801	6599.782
145	Wyoming	5149.561	4612.245

	Locale	P20_15	A20_15
1	Alabama	11557.089	10386.808
2	Arizona	2268.243	5517.389
3	Arkansas	4931.922	4243.055
4	California	65113.567	77143.894
5	Colorado	2407.028	4368.326
6	Connecticut	2057.051	2967.185
7	Delaware	4213.862	3520.333
8	DC	.000	.000
9	Florida	5361.482	8733.143
10	Georgia	5937.994	6058.411
11	Idaho	937.781	1907.728
12	Illinois_N	17642.149	17071.528
13	Illinois_S	8821.075	8535.764
14	Adams	47.699	83.024
15	Allen	294.117	458.616
16	Bartholomew	.000	40.939
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	28.605
20	Brown	.000	.545
21	Carroll	.000	.000
22	Cass	.000	19.816
23	Clark	483.956	394.418
24	Clay	.000	.547
25	Clinton	.000	42.392
26	Crawford	.000	.000
27	Daviess	46.383	37.285
28	Dearborn	53.711	43.847
29	Decatur	.000	.000
30	DeKalb	.000	17.669
31	Delaware	.000	.563
32	Dubois	.000	43.028
33	Elkhart	47.516	169.946
34	Fayette	.000	.000
35	Floyd	.000	35.954
36	Fountain	.000	3.238
37	Franklin	289.850	232.998
38	Fulton	.000	.546
39	Gibson	.000	13.109
40	Grant	.000	.000
41	Greene	.000	3.188
42	Hamilton	58.560	61.995
43	Hancock	.000	.707
44	Harrison	319.996	257.231
45	Hendricks	.000	14.660
46	Henry	.000	2.900
47	Howard	.000	3.646
48	Huntington	47.291	128.209
49	Jackson	.000	.000
50	Jasper	.000	9.918
51	Jay	41.360	33.248

	Locale	P20_15	A20_15
52	Jefferson	.000	.000
53	Jennings	287.475	231.089
54	Johnson	.000	41.661
55	Knox	40.408	36.571
56	Kosciusko	45.389	43.289
57	LaGrange	.000	3.621
58	Lake	9357.507	7531.405
59	La Porte	43.080	38.505
60	Lawrence	251.496	205.308
61	Madison	.000	.549
62	Marion	531.113	530.735
63	Marshall	283.001	228.081
64	Martin	.000	.000
65	Miami	.000	.505
66	Monroe	291.513	295.868
67	Montgomery	.000	.000
68	Morgan	.000	113.240
69	Newton	.000	9.437
70	Noble	.000	3.456
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.509
76	Pike	.000	.000
77	Porter	.000	6.236
78	Posey	1699.945	1366.512
79	Pulaski	.000	.000
80	Putnam	.000	9.846
81	Randolph	41.339	36.328
82	Ripley	45.812	40.259
83	Rush	.000	.509
84	St. Joseph	44.855	87.487
85	Scott	44.917	36.107
86	Shelby	.000	.000
87	Spencer	.000	.000
88	Starke	.000	.000
89	Steuben	44.782	39.354
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	50.736	116.320
93	Tipton	.000	.000
94	Union	.000	.000
95	Vanderburgh	.000	.575
96	Vermillion	.000	.000
97	Vigo	.000	96.246
98	Wabash	41.287	60.416
99	Warren	.000	.000
100	Warrick	.000	.000
101	Washington	.000	.000
102	Wayne	.000	46.390

	Locale	P20_15	A20_15
103	Wells	.000	.594
104	White	.000	9.496
105	Whitley	.000	10.249
106	Iowa	769.877	1506.928
107	Kansas	12507.672	10415.864
108	Kentucky_E	3500.573	3208.145
109	Kentucky_W	2333.716	2138.763
110	Louisiana	55284.480	44560.702
111	Maine	810.962	1021.168
112	Maryland	5405.088	5851.923
113	Massachusetts	4754.611	9427.074
114	Michigan_E	4616.025	4441.059
115	Michigan_W	4616.025	4441.059
116	Minnesota	9459.461	11291.024
117	Mississippi	8690.831	7256.934
118	Missouri	6506.415	6059.417
119	Montana	3826.624	3104.310
120	Nebraska	44.459	379.518
121	Nevada	390.613	598.022
122	New Hampshire	772.189	2181.658
123	New Jersey	16489.596	15309.386
124	New Mexico	3704.741	3645.450
125	New York	6993.158	10231.877
126	North Carolina	3650.396	6346.635
127	North Dakota	736.232	669.645
128	Ohio_N	8190.284	7248.560
129	Ohio_M	8190.284	7248.560
130	Ohio_S	8190.284	7248.560
131	Oklahoma	11483.649	9954.676
132	Oregon	3577.326	5372.112
133	Pennsylvania	31831.890	28798.283
134	Rhode Island	46.240	424.757
135	South Carolina	1845.734	2535.609
136	South Dakota	44.912	773.746
137	Tennessee	6529.031	6071.835
138	Texas	119481.991	105487.018
139	Utah	8121.548	7592.336
140	Vermont	282.204	802.147
141	Virginia	3419.258	4722.563
142	Washington	10218.263	11203.865
143	West Virginia	1693.664	1409.929
144	Wisconsin	1950.191	2911.029
145	Wyoming	3802.693	3082.272

	Locale	P21_15	A21_15
1	Alabama	488.087	207.356
2	Arizona	194.357	204.405
3	Arkansas	235.717	125.218
4	California	1437.020	1585.723
5	Colorado	99.803	168.925
6	Connecticut	84.145	228.198
7	Delaware	21.683	95.261
8	DC	.000	.000
9	Florida	431.377	658.584
10	Georgia	948.661	481.728
11	Idaho	36.115	72.465
12	Illinois_N	234.286	551.677
13	Illinois_S	117.143	275.838
14	Adams	4.729	2.174
15	Allen	17.913	15.209
16	Bartholomew	13.271	2.216
17	Benton	.925	.353
18	Blackford	.146	.139
19	Boone	1.285	.919
20	Brown	.000	.111
21	Carroll	6.373	.496
22	Cass	.158	.491
23	Clark	20.059	7.418
24	Clay	.164	.693
25	Clinton	1.016	1.927
26	Crawford	.000	.000
27	Daviess	1.041	.992
28	Dearborn	.000	.419
29	Decatur	.166	.871
30	DeKalb	.183	2.504
31	Delaware	2.378	2.086
32	Dubois	113.243	1.703
33	Elkhart	68.621	18.750
34	Fayette	.909	.406
35	Floyd	7.847	2.233
36	Fountain	.000	.365
37	Franklin	.000	.184
38	Fulton	.000	.416
39	Gibson	.000	.273
40	Grant	2.525	1.317
41	Greene	.159	.216
42	Hamilton	5.857	6.401
43	Hancock	1.271	1.394
44	Harrison	12.949	.785
45	Hendricks	.251	1.320
46	Henry	2.621	.834
47	Howard	6.112	.564
48	Huntington	.000	1.267
49	Jackson	.991	2.289
50	Jasper	.170	.366
51	Jay	.928	.491

	Locale	P21_15	A21_15
52	Jefferson	.172	.679
53	Jennings	.000	.280
54	Johnson	1.888	1.447
55	Knox	.151	1.049
56	Kosciusko	5.304	3.532
57	LaGrange	5.441	.905
58	Lake	4.102	17.626
59	La Porte	3.436	4.793
60	Lawrence	.157	.192
61	Madison	6.867	4.315
62	Marion	21.776	83.251
63	Marshall	1.059	1.796
64	Martin	.000	.157
65	Miami	5.678	1.569
66	Monroe	1.272	4.644
67	Montgomery	.000	1.813
68	Morgan	.194	3.926
69	Newton	.969	.354
70	Noble	1.035	2.594
71	Ohio	.000	.000
72	Orange	27.795	.154
73	Owen	.000	.029
74	Parke	.160	.163
75	Perry	4.470	.114
76	Pike	.000	.120
77	Porter	1.501	6.284
78	Posey	.000	15.722
79	Pulaski	.168	.728
80	Putnam	.000	.152
81	Randolph	.745	.155
82	Ripley	2.999	1.032
83	Rush	.000	.210
84	St. Joseph	2.926	15.064
85	Scott	1.008	1.525
86	Shelby	5.382	1.972
87	Spencer	11.861	.711
88	Starke	.157	.597
89	Steuben	.168	.040
90	Sullivan	.000	.497
91	Switzerland	.197	.033
92	Tippecanoe	14.235	17.869
93	Tipton	.000	.468
94	Union	.000	.529
95	Vanderburgh	7.012	25.184
96	Vermillion	.000	13.725
97	Vigo	.988	10.665
98	Wabash	.154	3.168
99	Warren	.000	.171
100	Warrick	.179	1.290
101	Washington	30.298	.029
102	Wayne	10.679	2.149

	Locale	P21_15	A21_15
103	Wells	.291	4.573
104	White	4.655	.866
105	Whitley	.781	.370
106	Iowa	140.578	146.312
107	Kansas	81.841	133.892
108	Kentucky_E	70.744	131.302
109	Kentucky_W	47.162	87.535
110	Louisiana	22.252	329.382
111	Maine	80.371	46.985
112	Maryland	98.647	251.059
113	Massachusetts	253.167	362.245
114	Michigan_E	291.117	245.492
115	Michigan_W	291.117	245.492
116	Minnesota	222.018	236.101
117	Mississippi	518.048	118.908
118	Missouri	218.410	358.866
119	Montana	14.918	25.960
120	Nebraska	55.513	78.462
121	Nevada	40.877	63.057
122	New Hampshire	57.297	45.085
123	New Jersey	250.527	1002.225
124	New Mexico	18.297	40.302
125	New York	478.407	1097.347
126	North Carolina	2931.121	660.671
127	North Dakota	17.520	23.782
128	Ohio_N	128.491	229.495
129	Ohio_M	128.491	229.495
130	Ohio_S	128.491	229.495
131	Oklahoma	62.013	104.752
132	Oregon	114.983	146.249
133	Pennsylvania	548.233	546.170
134	Rhode Island	102.550	42.789
135	South Carolina	815.496	431.858
136	South Dakota	35.658	28.692
137	Tennessee	592.675	483.675
138	Texas	595.601	1352.827
139	Utah	118.292	114.875
140	Vermont	51.249	21.220
141	Virginia	685.776	327.565
142	Washington	148.823	214.351
143	West Virginia	21.890	136.452
144	Wisconsin	326.120	254.263
145	Wyoming	3.818	17.629

	Locale	P22_15	A22_15
1	Alabama	4037.588	4037.588
2	Arizona	6100.480	6100.480
3	Arkansas	2546.454	2546.454
4	California	33923.676	33923.676
5	Colorado	4158.537	4158.537
6	Connecticut	3151.896	3151.896
7	Delaware	784.045	784.045
8	DC	.000	.000
9	Florida	17761.439	17761.439
10	Georgia	8466.440	8466.440
11	Idaho	1364.301	1364.301
12	Illinois_N	7552.468	7552.468
13	Illinois_S	3776.234	3776.234
14	Adams	32.857	32.857
15	Allen	332.417	332.417
16	Bartholomew	71.146	71.146
17	Benton	7.622	7.622
18	Blackford	11.619	11.619
19	Boone	54.291	54.291
20	Brown	14.121	14.121
21	Carroll	18.276	18.276
22	Cass	36.372	36.372
23	Clark	96.764	96.764
24	Clay	23.975	23.975
25	Clinton	31.409	31.409
26	Crawford	10.687	10.687
27	Daviess	27.510	27.510
28	Dearborn	52.219	52.219
29	Decatur	22.463	22.463
30	DeKalb	40.995	40.995
31	Delaware	110.051	110.051
32	Dubois	38.005	38.005
33	Elkhart	182.668	182.668
34	Fayette	21.983	21.983
35	Floyd	72.679	72.679
36	Fountain	15.692	15.692
37	Franklin	21.147	21.147
38	Fulton	18.701	18.701
39	Gibson	29.500	29.500
40	Grant	60.584	60.584
41	Greene	30.132	30.132
42	Hamilton	262.520	262.520
43	Hancock	65.224	65.224
44	Harrison	37.355	37.355
45	Hendricks	145.065	145.065
46	Henry	41.056	41.056
47	Howard	77.166	77.166
48	Huntington	37.229	37.229
49	Jackson	37.744	37.744
50	Jasper	28.429	28.429
51	Jay	18.572	18.572

	Locale	P22_15	A22_15
52	Jefferson	30.340	30.340
53	Jennings	27.401	27.401
54	Johnson	138.222	138.222
55	Knox	34.088	34.088
56	Kosciusko	69.827	69.827
57	LaGrange	36.962	36.962
58	Lake	428.222	428.222
59	La Porte	97.261	97.261
60	Lawrence	40.671	40.671
61	Madison	123.063	123.063
62	Marion	799.028	799.028
63	Marshall	43.967	43.967
64	Martin	8.837	8.837
65	Miami	30.721	30.721
66	Monroe	123.019	123.019
67	Montgomery	34.943	34.943
68	Morgan	71.956	71.956
69	Newton	13.058	13.058
70	Noble	44.073	44.073
71	Ohio	5.056	5.056
72	Orange	17.910	17.910
73	Owen	21.003	21.003
74	Parke	15.098	15.098
75	Perry	16.038	16.038
76	Pike	11.837	11.837
77	Porter	136.282	136.282
78	Posey	25.061	25.061
79	Pulaski	12.321	12.321
80	Putnam	34.466	34.466
81	Randolph	23.488	23.488
82	Ripley	25.182	25.182
83	Rush	15.270	15.270
84	St. Joseph	254.154	254.154
85	Scott	21.939	21.939
86	Shelby	39.517	39.517
87	Spencer	18.062	18.062
88	Starke	20.837	20.837
89	Steuben	31.064	31.064
90	Sullivan	19.925	19.925
91	Switzerland	9.013	9.013
92	Tippecanoe	155.347	155.347
93	Tipton	14.397	14.397
94	Union	6.491	6.491
95	Vanderburgh	157.484	157.484
96	Vermillion	14.256	14.256
97	Vigo	92.640	92.640
98	Wabash	30.651	30.651
99	Warren	7.326	7.326
100	Warrick	54.449	54.449
101	Washington	26.177	26.177
102	Wayne	59.416	59.416

	Locale	P22_15	A22_15
103	Wells	26.303	26.303
104	White	22.651	22.651
105	Whitley	30.428	30.428
106	Iowa	2635.809	2635.809
107	Kansas	2465.094	2465.094
108	Kentucky_E	2250.783	2250.783
109	Kentucky_W	1500.522	1500.522
110	Louisiana	4075.953	4075.953
111	Maine	1205.015	1205.015
112	Maryland	5329.212	5329.212
113	Massachusetts	5842.566	5842.566
114	Michigan_E	4611.004	4611.004
115	Michigan_W	4611.004	4611.004
116	Minnesota	4838.269	4838.269
117	Mississippi	2594.153	2594.153
118	Missouri	5241.583	5241.583
119	Montana	869.058	869.058
120	Nebraska	1553.768	1553.768
121	Nevada	2380.040	2380.040
122	New Hampshire	1235.961	1235.961
123	New Jersey	7969.805	7969.805
124	New Mexico	1755.981	1755.981
125	New York	16940.900	16940.900
126	North Carolina	8394.684	8394.684
127	North Dakota	566.454	566.454
128	Ohio_N	3396.253	3396.253
129	Ohio_M	3396.253	3396.253
130	Ohio_S	3396.253	3396.253
131	Oklahoma	3155.246	3155.246
132	Oregon	3416.528	3416.528
133	Pennsylvania	11156.751	11156.751
134	Rhode Island	982.557	982.557
135	South Carolina	3936.913	3936.913
136	South Dakota	692.670	692.670
137	Tennessee	5540.381	5540.381
138	Texas	22187.423	22187.423
139	Utah	2328.823	2328.823
140	Vermont	582.225	582.225
141	Virginia	7201.055	7201.055
142	Washington	5899.257	5899.257
143	West Virginia	1616.421	1616.421
144	Wisconsin	5091.715	5091.715
145	Wyoming	461.380	461.380

	Locale	P23_15	A23_15
1	Alabama	2203.619	2987.761
2	Arizona	2021.553	1691.246
3	Arkansas	1618.604	1493.095
4	California	14854.393	15651.402
5	Colorado	1242.113	1291.489
6	Connecticut	3021.151	1186.024
7	Delaware	468.372	627.825
8	DC	.000	.000
9	Florida	3727.487	4843.787
10	Georgia	3207.109	8378.464
11	Idaho	406.489	385.369
12	Illinois_N	6219.541	4362.691
13	Illinois_S	3109.770	2181.345
14	Adams	30.362	48.959
15	Allen	189.712	270.601
16	Bartholomew	67.797	41.139
17	Benton	3.681	3.253
18	Blackford	30.936	13.956
19	Boone	21.307	9.119
20	Brown	3.568	2.249
21	Carroll	24.024	2.911
22	Cass	36.822	32.874
23	Clark	90.253	68.139
24	Clay	8.090	10.146
25	Clinton	20.607	11.537
26	Crawford	.000	1.702
27	Daviess	11.174	9.739
28	Dearborn	15.109	14.521
29	Decatur	155.003	17.320
30	DeKalb	202.324	92.073
31	Delaware	106.702	27.561
32	Dubois	10.841	45.386
33	Elkhart	432.623	316.226
34	Fayette	18.587	3.501
35	Floyd	40.300	68.378
36	Fountain	3.533	2.499
37	Franklin	.591	29.477
38	Fulton	45.818	8.031
39	Gibson	7.639	19.327
40	Grant	11.217	31.657
41	Greene	4.843	5.704
42	Hamilton	87.512	122.600
43	Hancock	31.815	11.229
44	Harrison	7.006	34.774
45	Hendricks	17.061	27.850
46	Henry	17.153	17.428
47	Howard	11.146	28.754
48	Huntington	60.308	22.504
49	Jackson	43.763	23.557
50	Jasper	37.494	6.774
51	Jay	47.946	11.660

	Locale	P23_15	A23_15
52	Jefferson	10.102	12.436
53	Jennings	37.817	88.942
54	Johnson	79.445	59.912
55	Knox	5.787	8.430
56	Kosciusko	92.328	59.399
57	LaGrange	13.000	36.815
58	Lake	188.003	711.490
59	La Porte	126.937	47.439
60	Lawrence	29.503	31.891
61	Madison	70.360	33.517
62	Marion	776.433	259.001
63	Marshall	64.284	123.744
64	Martin	.496	1.407
65	Miami	15.100	18.276
66	Monroe	29.608	56.019
67	Montgomery	41.834	33.356
68	Morgan	36.720	16.452
69	Newton	3.530	18.111
70	Noble	87.276	98.506
71	Ohio	.574	.805
72	Orange	3.118	8.983
73	Owen	.735	9.618
74	Parke	.525	8.598
75	Perry	2.995	7.757
76	Pike	3.293	1.885
77	Porter	102.626	34.167
78	Posey	69.364	131.228
79	Pulaski	9.592	1.962
80	Putnam	.551	49.163
81	Randolph	5.617	8.516
82	Ripley	14.064	7.413
83	Rush	2.994	5.317
84	St. Joseph	273.536	164.390
85	Scott	11.381	62.645
86	Shelby	26.391	78.407
87	Spencer	3.457	15.957
88	Starke	2.089	9.360
89	Steuben	74.333	37.820
90	Sullivan	.920	9.637
91	Switzerland	.000	9.044
92	Tippecanoe	107.167	59.891
93	Tipton	6.778	2.293
94	Union	2.117	1.034
95	Vanderburgh	198.089	180.759
96	Vermillion	67.826	2.271
97	Vigo	73.866	76.876
98	Wabash	64.185	14.447
99	Warren	6.819	1.537
100	Warrick	16.787	10.080
101	Washington	34.500	12.723
102	Wayne	35.752	47.170

	Locale	P23_15	A23_15
103	Wells	35.543	34.609
104	White	49.993	17.330
105	Whitley	41.095	22.771
106	Iowa	1627.846	1165.385
107	Kansas	1049.473	1820.258
108	Kentucky_E	1189.796	1281.176
109	Kentucky_W	793.198	854.118
110	Louisiana	2156.674	4591.092
111	Maine	347.785	526.402
112	Maryland	1426.628	1607.933
113	Massachusetts	3447.419	2578.048
114	Michigan_E	3554.354	2427.332
115	Michigan_W	3554.354	2427.332
116	Minnesota	3323.628	2366.121
117	Mississippi	1100.574	1821.545
118	Missouri	3141.730	2335.761
119	Montana	98.107	413.295
120	Nebraska	654.039	526.894
121	Nevada	452.034	656.668
122	New Hampshire	872.681	652.465
123	New Jersey	4889.641	4092.755
124	New Mexico	229.416	552.488
125	New York	6077.628	5373.269
126	North Carolina	4767.588	6106.747
127	North Dakota	102.781	189.327
128	Ohio_N	3165.781	2350.535
129	Ohio_M	3165.781	2350.535
130	Ohio_S	3165.781	2350.535
131	Oklahoma	1664.801	1905.107
132	Oregon	1350.373	1183.474
133	Pennsylvania	6816.428	6366.554
134	Rhode Island	702.827	494.454
135	South Carolina	3401.118	3045.785
136	South Dakota	214.790	245.198
137	Tennessee	4039.144	3295.113
138	Texas	11525.312	14902.562
139	Utah	938.503	1208.763
140	Vermont	222.180	202.835
141	Virginia	2169.396	2730.350
142	Washington	1608.971	2295.180
143	West Virginia	867.945	482.070
144	Wisconsin	4932.728	2442.691
145	Wyoming	96.828	342.164

	Locale	P24_15	A24_15
1	Alabama	4917.022	4028.129
2	Arizona	965.035	1726.318
3	Arkansas	2098.311	2254.923
4	California	27702.895	20603.481
5	Colorado	1024.082	1744.371
6	Connecticut	875.183	2714.836
7	Delaware	1792.809	1172.817
8	DC	.000	.000
9	Florida	2281.070	4865.904
10	Georgia	2526.349	10342.852
11	Idaho	398.984	581.617
12	Illinois_N	7505.941	8454.420
13	Illinois_S	3752.971	4227.210
14	Adams	20.294	42.551
15	Allen	125.133	355.028
16	Bartholomew	.000	186.975
17	Benton	.000	2.573
18	Blackford	.000	2.443
19	Boone	.000	26.522
20	Brown	.000	.690
21	Carroll	.000	2.837
22	Cass	.000	9.599
23	Clark	205.902	154.142
24	Clay	.000	8.490
25	Clinton	.000	22.599
26	Crawford	.000	.000
27	Daviess	19.734	18.124
28	Dearborn	22.852	13.723
29	Decatur	.000	20.712
30	DeKalb	.000	50.045
31	Delaware	.000	55.932
32	Dubois	.000	11.096
33	Elkhart	20.216	273.985
34	Fayette	.000	28.788
35	Floyd	.000	38.239
36	Fountain	.000	.683
37	Franklin	123.318	35.983
38	Fulton	.000	16.808
39	Gibson	.000	8.514
40	Grant	.000	36.934
41	Greene	.000	1.017
42	Hamilton	24.915	53.656
43	Hancock	.000	13.733
44	Harrison	136.144	43.856
45	Hendricks	.000	19.001
46	Henry	.000	21.371
47	Howard	.000	15.872
48	Huntington	20.120	31.965
49	Jackson	.000	44.736
50	Jasper	.000	.472
51	Jay	17.597	13.444

	Locale	P24_15	A24_15
52	Jefferson	.000	40.948
53	Jennings	122.308	90.963
54	Johnson	.000	48.251
55	Knox	17.192	8.255
56	Kosciusko	19.311	77.578
57	LaGrange	.000	29.481
58	Lake	3981.198	1233.049
59	La Porte	18.329	114.301
60	Lawrence	107.000	46.753
61	Madison	.000	46.528
62	Marion	225.965	923.603
63	Marshall	120.404	56.204
64	Martin	.000	.422
65	Miami	.000	13.357
66	Monroe	124.026	141.146
67	Montgomery	.000	20.650
68	Morgan	.000	46.941
69	Newton	.000	4.413
70	Noble	.000	57.124
71	Ohio	.000	.000
72	Orange	.000	.442
73	Owen	.000	7.104
74	Parke	.000	2.679
75	Perry	.000	13.278
76	Pike	.000	.000
77	Porter	.000	57.500
78	Posey	723.250	328.068
79	Pulaski	.000	22.372
80	Putnam	.000	8.206
81	Randolph	17.588	28.024
82	Ripley	19.491	9.555
83	Rush	.000	22.999
84	St. Joseph	19.084	157.351
85	Scott	19.110	39.128
86	Shelby	.000	30.876
87	Spencer	.000	8.369
88	Starke	.000	20.299
89	Steuben	19.053	35.663
90	Sullivan	.000	.708
91	Switzerland	.000	.000
92	Tippecanoe	21.586	286.692
93	Tipton	.000	8.380
94	Union	.000	3.455
95	Vanderburgh	.000	260.247
96	Vermillion	.000	112.288
97	Vigo	.000	92.957
98	Wabash	17.566	50.828
99	Warren	.000	8.183
100	Warrick	.000	10.155
101	Washington	.000	36.130
102	Wayne	.000	23.975

	Locale	P24_15	A24_15
103	Wells	.000	15.828
104	White	.000	14.561
105	Whitley	.000	7.020
106	Iowa	327.548	2462.629
107	Kansas	5321.452	3042.028
108	Kentucky_E	1489.337	1959.952
109	Kentucky_W	992.891	1306.635
110	Louisiana	23521.060	8788.118
111	Maine	345.028	552.080
112	Maryland	2299.622	2359.476
113	Massachusetts	2022.873	4198.418
114	Michigan_E	1963.911	4409.696
115	Michigan_W	1963.911	4409.696
116	Minnesota	4024.575	4067.616
117	Mississippi	3697.558	2752.239
118	Missouri	2768.187	4305.720
119	Montana	1628.056	574.320
120	Nebraska	18.915	804.013
121	Nevada	166.188	335.554
122	New Hampshire	328.532	886.598
123	New Jersey	7015.581	8748.678
124	New Mexico	1576.201	595.270
125	New York	2975.274	9264.558
126	North Carolina	1553.079	9298.069
127	North Dakota	313.234	342.806
128	Ohio_N	3484.597	3843.090
129	Ohio_M	3484.597	3843.090
130	Ohio_S	3484.597	3843.090
131	Oklahoma	4885.776	2891.678
132	Oregon	1521.991	1578.593
133	Pennsylvania	13543.038	10108.762
134	Rhode Island	19.673	498.578
135	South Carolina	785.277	6011.898
136	South Dakota	19.108	375.584
137	Tennessee	2777.809	6186.743
138	Texas	50834.214	26375.600
139	Utah	3455.353	1918.464
140	Vermont	120.065	249.794
141	Virginia	1454.741	3534.376
142	Washington	4347.411	2538.042
143	West Virginia	720.578	1328.470
144	Wisconsin	829.719	5591.047
145	Wyoming	1617.875	564.400

	Locale	P25_15	A25_15
1	Alabama	24077.003	24077.003
2	Arizona	10664.592	10664.592
3	Arkansas	15034.503	15034.503
4	California	40294.621	40294.621
5	Colorado	4300.786	4300.786
6	Connecticut	1387.508	1387.508
7	Delaware	1144.239	1144.239
8	DC	.000	.000
9	Florida	18470.797	18470.797
10	Georgia	30596.853	30596.853
11	Idaho	9755.519	9755.519
12	Illinois_N	5524.997	5524.997
13	Illinois_S	2762.499	2762.499
14	Adams	560.035	560.035
15	Allen	181.791	181.791
16	Bartholomew	57.846	57.846
17	Benton	146.945	146.945
18	Blackford	62.202	62.202
19	Boone	.000	.000
20	Brown	24.016	24.016
21	Carroll	.000	.000
22	Cass	144.881	144.881
23	Clark	651.475	651.475
24	Clay	53.597	53.597
25	Clinton	30.441	30.441
26	Crawford	61.999	61.999
27	Daviess	212.730	212.730
28	Dearborn	10.948	10.948
29	Decatur	23.539	23.539
30	DeKalb	666.504	666.504
31	Delaware	55.129	55.129
32	Dubois	1606.691	1606.691
33	Elkhart	6179.356	6179.356
34	Fayette	.000	.000
35	Floyd	571.336	571.336
36	Fountain	8.807	8.807
37	Franklin	38.404	38.404
38	Fulton	234.471	234.471
39	Gibson	.000	.000
40	Grant	47.166	47.166
41	Greene	52.026	52.026
42	Hamilton	150.405	150.405
43	Hancock	32.318	32.318
44	Harrison	184.812	184.812
45	Hendricks	82.030	82.030
46	Henry	48.967	48.967
47	Howard	53.282	53.282
48	Huntington	81.937	81.937
49	Jackson	264.511	264.511
50	Jasper	63.823	63.823
51	Jay	50.585	50.585

	Locale	P25_15	A25_15
52	Jefferson	68.297	68.297
53	Jennings	68.365	68.365
54	Johnson	1207.281	1207.281
55	Knox	62.600	62.600
56	Kosciusko	288.663	288.663
57	LaGrange	1851.599	1851.599
58	Lake	209.384	209.384
59	La Porte	183.533	183.533
60	Lawrence	99.112	99.112
61	Madison	160.463	160.463
62	Marion	646.839	646.839
63	Marshall	619.169	619.169
64	Martin	8.264	8.264
65	Miami	111.367	111.367
66	Monroe	59.422	59.422
67	Montgomery	38.447	38.447
68	Morgan	193.259	193.259
69	Newton	.000	.000
70	Noble	56.408	56.408
71	Ohio	.000	.000
72	Orange	395.485	395.485
73	Owen	116.723	116.723
74	Parke	152.988	152.988
75	Perry	49.878	49.878
76	Pike	54.839	54.839
77	Porter	99.025	99.025
78	Posey	9.240	9.240
79	Pulaski	9.127	9.127
80	Putnam	55.093	55.093
81	Randolph	317.677	317.677
82	Ripley	113.927	113.927
83	Rush	49.859	49.859
84	St. Joseph	466.302	466.302
85	Scott	54.935	54.935
86	Shelby	.000	.000
87	Spencer	130.116	130.116
88	Starke	275.456	275.456
89	Steuben	44.729	44.729
90	Sullivan	81.201	81.201
91	Switzerland	.000	.000
92	Tippecanoe	52.744	52.744
93	Tipton	51.773	51.773
94	Union	8.986	8.986
95	Vanderburgh	226.977	226.977
96	Vermillion	.000	.000
97	Vigo	105.016	105.016
98	Wabash	147.278	147.278
99	Warren	54.941	54.941
100	Warrick	122.551	122.551
101	Washington	213.197	213.197
102	Wayne	48.898	48.898

	Locale	P25_15	A25_15
103	Wells	58.121	58.121
104	White	23.026	23.026
105	Whitley	169.193	169.193
106	Iowa	7725.481	7725.481
107	Kansas	2825.575	2825.575
108	Kentucky_E	6668.976	6668.976
109	Kentucky_W	4445.984	4445.984
110	Louisiana	8750.871	8750.871
111	Maine	7562.492	7562.492
112	Maryland	4033.036	4033.036
113	Massachusetts	2656.461	2656.461
114	Michigan_E	6371.764	6361.764
115	Michigan_W	6371.764	6361.764
116	Minnesota	14960.080	14960.080
117	Mississippi	17171.338	17171.338
118	Missouri	9654.422	9654.422
119	Montana	5175.763	5175.763
120	Nebraska	2296.413	2296.413
121	Nevada	1368.173	1368.173
122	New Hampshire	3805.247	3805.247
123	New Jersey	2448.426	2448.426
124	New Mexico	1497.690	1497.690
125	New York	8966.396	8966.396
126	North Carolina	37027.770	37027.770
127	North Dakota	848.125	848.125
128	Ohio_N	6215.889	6215.889
129	Ohio_M	6215.889	6215.889
130	Ohio_S	6215.889	6215.889
131	Oklahoma	2881.851	2881.851
132	Oregon	35935.128	35935.128
133	Pennsylvania	22129.367	22129.367
134	Rhode Island	480.703	480.703
135	South Carolina	11239.817	11239.817
136	South Dakota	1364.969	1364.969
137	Tennessee	18833.352	18833.352
138	Texas	32814.677	32814.677
139	Utah	2397.863	2397.863
140	Vermont	3189.717	3189.717
141	Virginia	21481.849	21481.849
142	Washington	21893.239	21893.239
143	West Virginia	6818.164	6818.164
144	Wisconsin	26149.138	26149.138
145	Wyoming	972.630	972.630

	Locale	P26_15	A26_15
1	Alabama	20482.700	19213.120
2	Arizona	9072.543	8169.550
3	Arkansas	12790.098	11724.323
4	California	34279.293	37623.927
5	Colorado	3658.749	3472.910
6	Connecticut	1180.376	1273.430
7	Delaware	973.423	1350.979
8	DC	.000	.000
9	Florida	15713.410	14320.674
10	Georgia	26029.243	23370.479
11	Idaho	8299.179	7337.284
12	Illinois_N	4700.206	6200.069
13	Illinois_S	2350.103	3100.034
14	Adams	476.431	420.478
15	Allen	154.653	169.785
16	Bartholomew	49.211	42.843
17	Benton	125.009	108.832
18	Blackford	52.916	46.068
19	Boone	.000	.000
20	Brown	20.430	17.787
21	Carroll	.000	.000
22	Cass	123.253	107.303
23	Clark	554.220	540.330
24	Clay	45.596	39.696
25	Clinton	25.897	22.546
26	Crawford	52.744	45.919
27	Daviess	180.973	163.096
28	Dearborn	9.314	14.527
29	Decatur	20.025	17.434
30	DeKalb	567.006	493.633
31	Delaware	46.899	40.830
32	Dubois	1366.838	1189.963
33	Elkhart	5256.879	4582.292
34	Fayette	.000	.000
35	Floyd	486.045	423.148
36	Fountain	7.493	6.523
37	Franklin	32.671	63.078
38	Fulton	199.468	173.656
39	Gibson	.000	.000
40	Grant	40.125	34.933
41	Greene	44.259	38.532
42	Hamilton	127.952	118.392
43	Hancock	27.493	23.935
44	Harrison	157.222	175.114
45	Hendricks	69.784	60.754
46	Henry	41.657	36.266
47	Howard	45.328	39.462
48	Huntington	69.705	66.336
49	Jackson	225.024	195.905
50	Jasper	54.295	47.269
51	Jay	43.033	42.407

	Locale	P26_15	A26_15
52	Jefferson	58.101	50.583
53	Jennings	58.159	84.984
54	Johnson	1027.054	894.148
55	Knox	53.254	51.192
56	Kosciusko	245.570	219.216
57	LaGrange	1575.186	1371.349
58	Lake	178.126	1273.221
59	La Porte	156.134	141.077
60	Lawrence	84.316	103.457
61	Madison	136.508	118.844
62	Marion	550.277	542.532
63	Marshall	526.737	492.391
64	Martin	7.030	6.120
65	Miami	94.742	82.482
66	Monroe	50.551	78.843
67	Montgomery	32.707	28.475
68	Morgan	164.408	143.133
69	Newton	.000	.000
70	Noble	47.987	41.778
71	Ohio	.000	.000
72	Orange	336.445	292.908
73	Owen	99.298	86.448
74	Parke	130.149	113.307
75	Perry	42.432	36.941
76	Pike	46.652	40.615
77	Porter	84.242	73.341
78	Posey	7.861	209.973
79	Pulaski	7.764	6.760
80	Putnam	46.868	40.803
81	Randolph	270.253	240.221
82	Ripley	96.919	89.852
83	Rush	42.416	36.927
84	St. Joseph	396.690	350.717
85	Scott	46.734	46.054
86	Shelby	.000	.000
87	Spencer	110.692	96.368
88	Starke	234.335	204.011
89	Steuben	38.052	38.479
90	Sullivan	69.079	60.140
91	Switzerland	.000	.000
92	Tippecanoe	44.870	45.126
93	Tipton	44.044	38.345
94	Union	7.644	6.655
95	Vanderburgh	193.093	168.106
96	Vermillion	.000	.000
97	Vigo	89.339	77.778
98	Wabash	125.291	114.012
99	Warren	46.739	40.691
100	Warrick	104.256	90.765
101	Washington	181.371	157.900
102	Wayne	41.598	36.215

	Locale	P26_15	A26_15
103	Wells	49.444	43.046
104	White	19.589	17.054
105	Whitley	143.935	125.309
106	Iowa	6572.193	5813.714
107	Kansas	2403.763	3587.268
108	Kentucky_E	5673.407	5357.531
109	Kentucky_W	3782.271	3571.688
110	Louisiana	7444.509	13087.194
111	Maine	6433.535	5697.909
112	Maryland	3430.970	3632.850
113	Massachusetts	2259.895	2535.591
114	Michigan_E	5412.057	5263.288
115	Michigan_W	5412.057	5263.288
116	Minnesota	12726.785	12210.207
117	Mississippi	14607.938	13756.085
118	Missouri	8213.175	7927.815
119	Montana	4403.106	4290.574
120	Nebraska	1953.596	1706.104
121	Nevada	1163.927	1059.984
122	New Hampshire	3237.186	2910.549
123	New Jersey	2082.916	3783.748
124	New Mexico	1274.109	1551.919
125	New York	7627.860	7476.404
126	North Carolina	31500.129	27860.058
127	North Dakota	721.514	716.120
128	Ohio_N	5287.958	5582.343
129	Ohio_M	5287.958	5582.343
130	Ohio_S	5287.958	5582.343
131	Oklahoma	2451.638	3506.586
132	Oregon	30570.602	27042.084
133	Pennsylvania	18825.815	20193.315
134	Rhode Island	408.942	361.548
135	South Carolina	9561.896	8545.092
136	South Dakota	1161.202	1016.303
137	Tennessee	16021.841	14728.705
138	Texas	27915.982	38580.636
139	Utah	2039.901	2746.386
140	Vermont	2713.545	2396.120
141	Virginia	18274.960	16318.668
142	Washington	18624.936	17435.781
143	West Virginia	5800.323	5252.113
144	Wisconsin	22245.500	19599.860
145	Wyoming	827.432	1174.749

	Locale	P27_15	A27_15
1	Alabama	6659.068	5768.422
2	Arizona	1651.275	1647.863
3	Arkansas	4859.818	5852.846
4	California	14660.778	19293.929
5	Colorado	1245.291	1922.637
6	Connecticut	2137.212	1678.076
7	Delaware	763.987	1146.242
8	DC	.000	.000
9	Florida	5456.771	5702.065
10	Georgia	12010.183	10524.450
11	Idaho	824.509	1614.296
12	Illinois_N	7013.840	7395.382
13	Illinois_S	3506.920	3697.691
14	Adams	.949	24.253
15	Allen	309.806	271.041
16	Bartholomew	246.458	206.794
17	Benton	55.650	27.932
18	Blackford	128.958	67.905
19	Boone	4.420	2.994
20	Brown	.000	.591
21	Carroll	.000	107.687
22	Cass	.000	100.287
23	Clark	31.825	48.431
24	Clay	.000	.594
25	Clinton	20.961	138.574
26	Crawford	.000	.000
27	Daviess	.923	65.615
28	Dearborn	1.069	2.792
29	Decatur	.000	22.260
30	DeKalb	66.127	37.168
31	Delaware	159.023	87.448
32	Dubois	75.883	87.737
33	Elkhart	276.050	181.675
34	Fayette	.000	.000
35	Floyd	63.962	78.599
36	Fountain	.000	3.512
37	Franklin	5.768	11.794
38	Fulton	20.258	19.350
39	Gibson	.000	24.015
40	Grant	123.848	76.003
41	Greene	.000	21.608
42	Hamilton	1.165	12.800
43	Hancock	79.118	40.477
44	Harrison	6.368	64.673
45	Hendricks	.000	41.882
46	Henry	18.545	12.562
47	Howard	.000	9.383
48	Huntington	64.828	57.905
49	Jackson	161.847	83.385
50	Jasper	.000	13.830
51	Jay	19.980	36.079

	Locale	P27_15	A27_15
52	Jefferson	.000	1.243
53	Jennings	27.913	22.187
54	Johnson	78.367	39.883
55	Knox	19.521	18.172
56	Kosciusko	4.407	59.819
57	LaGrange	.000	11.650
58	Lake	323.392	494.753
59	La Porte	162.818	115.682
60	Lawrence	5.005	13.072
61	Madison	59.412	74.497
62	Marion	977.349	738.944
63	Marshall	174.216	122.771
64	Martin	.000	3.295
65	Miami	117.157	62.092
66	Monroe	71.438	50.531
67	Montgomery	60.668	53.261
68	Morgan	.000	.702
69	Newton	19.998	10.622
70	Noble	62.308	78.128
71	Ohio	.000	.000
72	Orange	.000	3.450
73	Owen	.000	.626
74	Parke	.000	10.166
75	Perry	.000	.552
76	Pike	.000	.000
77	Porter	.000	19.619
78	Posey	33.828	69.015
79	Pulaski	3.456	5.920
80	Putnam	.000	.610
81	Randolph	.823	5.900
82	Ripley	62.801	33.444
83	Rush	18.882	10.913
84	St. Joseph	195.841	141.736
85	Scott	.894	24.542
86	Shelby	3.345	11.950
87	Spencer	.000	3.436
88	Starke	19.378	9.726
89	Steuben	21.633	27.418
90	Sullivan	.000	.000
91	Switzerland	4.068	2.042
92	Tippecanoe	24.510	58.003
93	Tipton	19.607	19.876
94	Union	.000	.000
95	Vanderburgh	222.359	329.933
96	Vermillion	54.839	27.964
97	Vigo	177.780	104.022
98	Wabash	120.342	64.931
99	Warren	.000	.608
100	Warrick	3.684	1.849
101	Washington	.000	3.761
102	Wayne	73.456	75.048

	Locale	P27_15	A27_15
103	Wells	22.011	44.005
104	White	20.124	12.572
105	Whitley	64.076	32.803
106	Iowa	1918.849	3744.013
107	Kansas	1435.023	2955.236
108	Kentucky_E	2291.348	2007.356
109	Kentucky_W	1527.565	1338.238
110	Louisiana	4960.634	5115.729
111	Maine	4227.766	2542.617
112	Maryland	2749.287	2684.865
113	Massachusetts	6816.724	4880.815
114	Michigan_E	3424.325	2849.924
115	Michigan_W	3424.325	2849.924
116	Minnesota	6070.663	6161.983
117	Mississippi	3212.554	3490.422
118	Missouri	4777.487	4978.000
119	Montana	348.997	424.888
120	Nebraska	575.414	2355.770
121	Nevada	310.320	435.734
122	New Hampshire	1432.862	891.235
123	New Jersey	6604.377	5673.687
124	New Mexico	278.637	508.553
125	New York	8856.606	7541.264
126	North Carolina	8703.881	8240.692
127	North Dakota	34.137	346.482
128	Ohio_N	3532.861	2983.622
129	Ohio_M	3532.861	2983.622
130	Ohio_S	3532.861	2983.622
131	Oklahoma	1569.079	2004.549
132	Oregon	3132.431	3007.818
133	Pennsylvania	11632.619	11310.523
134	Rhode Island	706.274	532.305
135	South Carolina	5264.987	3745.571
136	South Dakota	229.025	606.006
137	Tennessee	6558.362	5866.769
138	Texas	11214.861	15369.382
139	Utah	1277.620	1735.815
140	Vermont	641.021	570.266
141	Virginia	6025.526	5517.586
142	Washington	5839.315	5505.669
143	West Virginia	239.918	474.088
144	Wisconsin	15079.657	11264.674
145	Wyoming	79.184	194.114

	Locale	P28_15	A28_15
1	Alabama	2429.998	1925.943
2	Arizona	1990.509	2604.237
3	Arkansas	2460.968	1990.141
4	California	17713.600	19183.501
5	Colorado	1915.371	2088.001
6	Connecticut	971.959	1167.106
7	Delaware	510.325	454.794
8	DC	.000	.000
9	Florida	4101.730	5167.174
10	Georgia	7596.144	3569.152
11	Idaho	832.794	809.180
12	Illinois_N	416.397	404.590
13	Illinois_S	5342.365	5540.358
14	Adams	31.706	33.618
15	Allen	179.883	183.130
16	Bartholomew	71.600	65.736
17	Benton	.000	.814
18	Blackford	2.123	2.794
19	Boone	11.232	18.445
20	Brown	.599	2.031
21	Carroll	71.906	54.544
22	Cass	75.086	61.360
23	Clark	19.251	21.778
24	Clay	.601	3.086
25	Clinton	101.383	84.070
26	Crawford	.000	1.142
27	Daviess	42.623	34.114
28	Dearborn	.737	6.223
29	Decatur	14.863	13.271
30	DeKalb	9.274	13.899
31	Delaware	6.052	15.729
32	Dubois	50.029	46.758
33	Elkhart	122.245	96.408
34	Fayette	.000	2.349
35	Floyd	44.513	45.889
36	Fountain	3.558	4.780
37	Franklin	.437	2.579
38	Fulton	6.336	6.717
39	Gibson	20.945	20.501
40	Grant	.000	.000
41	Greene	16.325	15.139
42	Hamilton	29.573	39.602
43	Hancock	.777	7.648
44	Harrison	34.972	29.570
45	Hendricks	34.566	42.241
46	Henry	7.230	7.220
47	Howard	7.631	14.391
48	Huntington	50.604	54.381
49	Jackson	2.167	5.084
50	Jasper	12.950	14.045
51	Jay	16.609	14.133

	Locale	P28_15	A28_15
52	Jefferson	1.589	3.849
53	Jennings	29.699	2.928
54	Johnson	16.931	32.901
55	Knox	6.356	8.924
56	Kosciusko	45.104	37.882
57	LaGrange	9.934	11.192
58	Lake	52.044	82.122
59	La Porte	24.022	28.042
60	Lawrence	4.144	7.357
61	Madison	31.492	35.205
62	Marion	224.756	243.822
63	Marshall	23.115	18.274
64	Martin	2.200	2.553
65	Miami	3.055	5.106
66	Monroe	32.129	42.646
67	Montgomery	15.232	14.874
68	Morgan	43.740	56.584
69	Newton	3.925	5.727
70	Noble	45.923	29.074
71	Ohio	.000	.540
72	Orange	2.304	3.599
73	Owen	4.998	2.550
74	Parke	6.788	6.578
75	Perry	4.604	2.202
76	Pike	.000	1.265
77	Porter	16.180	26.818
78	Posey	6.956	4.477
79	Pulaski	2.794	3.360
80	Putnam	4.095	8.203
81	Randolph	4.039	5.944
82	Ripley	1.700	4.466
83	Rush	1.823	2.551
84	St. Joseph	60.394	69.802
85	Scott	28.228	13.487
86	Shelby	6.858	9.239
87	Spencer	2.294	3.608
88	Starke	.000	2.227
89	Steuben	15.905	12.224
90	Sullivan	.000	2.129
91	Switzerland	.000	.963
92	Tippecanoe	62.877	70.601
93	Tipton	6.700	6.439
94	Union	.000	.694
95	Vanderburgh	174.521	123.701
96	Vermillion	.294	1.738
97	Vigo	46.655	58.389
98	Wabash	13.121	16.588
99	Warren	.406	1.080
100	Warrick	.789	5.818
101	Washington	2.511	4.634
102	Wayne	42.869	44.885

	Locale	P28_15	A28_15
103	Wells	23.015	19.161
104	White	5.926	7.699
105	Whitley	4.268	7.959
106	Iowa	2257.808	2009.850
107	Kansas	1477.729	1336.169
108	Kentucky_E	853.905	779.583
109	Kentucky_W	569.270	519.722
110	Louisiana	838.202	1001.448
111	Maine	537.844	481.264
112	Maryland	1391.609	1777.842
113	Massachusetts	3345.001	3674.221
114	Michigan_E	1043.892	1294.242
115	Michigan_W	1043.892	1294.242
116	Minnesota	3414.856	3487.725
117	Mississippi	1511.866	1189.738
118	Missouri	2108.608	2085.314
119	Montana	114.390	173.783
120	Nebraska	1537.927	1322.261
121	Nevada	320.784	507.416
122	New Hampshire	785.344	874.635
123	New Jersey	2417.339	2655.315
124	New Mexico	430.536	602.383
125	New York	4320.381	5201.894
126	North Carolina	5753.768	4200.392
127	North Dakota	250.519	244.515
128	Ohio_N	1003.673	1125.310
129	Ohio_M	1003.673	1125.310
130	Ohio_S	1003.673	1125.310
131	Oklahoma	971.916	1082.195
132	Oregon	1914.058	2086.878
133	Pennsylvania	4812.754	4798.701
134	Rhode Island	352.841	357.374
135	South Carolina	2145.644	1384.748
136	South Dakota	659.009	629.480
137	Tennessee	2355.642	2111.982
138	Texas	8562.389	9515.941
139	Utah	1072.339	1126.694
140	Vermont	385.791	426.332
141	Virginia	2666.540	2786.014
142	Washington	2791.212	3027.848
143	West Virginia	231.002	342.706
144	Wisconsin	3107.278	2898.012
145	Wyoming	44.901	82.783

	Locale	P29_15	A29_15
1	Alabama	1728.765	1486.243
2	Arizona	1436.809	2245.597
3	Arkansas	1225.045	937.354
4	California	11236.806	12487.361
5	Colorado	1214.712	1530.764
6	Connecticut	1159.125	1160.218
7	Delaware	343.046	288.608
8	DC	.000	.000
9	Florida	5061.143	6538.015
10	Georgia	3939.716	3116.510
11	Idaho	507.137	502.202
12	Illinois_N	3271.056	2780.076
13	Illinois_S	1635.528	1390.038
14	Adams	5.724	12.095
15	Allen	156.591	122.363
16	Bartholomew	39.345	26.189
17	Benton	10.927	2.806
18	Blackford	18.672	4.277
19	Boone	9.600	19.985
20	Brown	.271	5.198
21	Carroll	4.858	6.728
22	Cass	4.814	13.389
23	Clark	14.955	35.619
24	Clay	1.880	8.825
25	Clinton	6.921	11.562
26	Crawford	.000	3.934
27	Daviess	4.527	10.126
28	Dearborn	3.106	19.222
29	Decatur	8.533	8.269
30	DeKalb	12.772	15.090
31	Delaware	34.629	40.510
32	Dubois	21.723	13.990
33	Elkhart	65.494	67.240
34	Fayette	3.978	8.092
35	Floyd	21.449	26.753
36	Fountain	2.767	5.776
37	Franklin	1.802	7.784
38	Fulton	5.982	6.884
39	Gibson	2.675	10.859
40	Grant	22.690	22.301
41	Greene	2.116	11.092
42	Hamilton	56.142	96.634
43	Hancock	24.279	24.009
44	Harrison	2.818	13.750
45	Hendricks	11.676	53.399
46	Henry	10.654	15.113
47	Howard	5.526	28.405
48	Huntington	15.691	13.704
49	Jackson	29.738	13.894
50	Jasper	3.583	10.465
51	Jay	7.380	6.837

	Locale	P29_15	A29_15
52	Jefferson	1.512	11.168
53	Jennings	4.826	10.086
54	Johnson	18.201	50.880
55	Knox	12.788	12.548
56	Kosciusko	6.961	25.703
57	LaGrange	7.961	13.606
58	Lake	70.448	157.629
59	La Porte	42.096	35.802
60	Lawrence	1.876	14.971
61	Madison	19.486	45.300
62	Marion	441.275	294.124
63	Marshall	28.787	16.184
64	Martin	1.538	3.253
65	Miami	26.571	11.309
66	Monroe	39.531	45.284
67	Montgomery	11.243	12.863
68	Morgan	2.223	26.487
69	Newton	5.342	4.807
70	Noble	15.188	16.223
71	Ohio	.000	1.861
72	Orange	1.505	6.593
73	Owen	.287	7.731
74	Parke	1.600	5.558
75	Perry	1.116	5.904
76	Pike	1.171	4.357
77	Porter	22.708	50.166
78	Posey	6.031	9.225
79	Pulaski	7.590	4.536
80	Putnam	1.484	12.687
81	Randolph	1.516	8.646
82	Ripley	13.292	9.270
83	Rush	4.588	5.621
84	St. Joseph	101.771	93.554
85	Scott	.279	8.076
86	Shelby	4.247	14.546
87	Spencer	6.176	6.649
88	Starke	3.772	7.670
89	Steuben	3.174	11.435
90	Sullivan	4.035	7.334
91	Switzerland	.874	3.318
92	Tippecanoe	22.806	57.183
93	Tipton	6.422	5.300
94	Union	1.644	2.389
95	Vanderburgh	75.362	57.970
96	Vermillion	9.304	5.248
97	Vigo	43.739	34.101
98	Wabash	18.199	11.283
99	Warren	1.676	2.697
100	Warrick	6.012	20.043
101	Washington	.288	9.636
102	Wayne	20.548	21.871

	Locale	P29_15	A29_15
103	Wells	47.746	9.682
104	White	11.183	8.338
105	Whitley	11.343	11.201
106	Iowa	1113.065	970.246
107	Kansas	909.515	907.405
108	Kentucky_E	849.901	828.517
109	Kentucky_W	566.601	552.344
110	Louisiana	1436.830	1500.365
111	Maine	874.296	443.568
112	Maryland	1493.537	1961.692
113	Massachusetts	2592.585	2150.658
114	Michigan_E	1423.112	1697.318
115	Michigan_W	1423.112	1697.318
116	Minnesota	2286.924	1780.975
117	Mississippi	953.102	954.912
118	Missouri	2217.542	1929.435
119	Montana	244.680	319.902
120	Nebraska	611.920	571.945
121	Nevada	500.901	876.097
122	New Hampshire	459.713	454.959
123	New Jersey	4696.158	2933.698
124	New Mexico	300.018	646.380
125	New York	6792.710	6235.973
126	North Carolina	3292.929	3090.097
127	North Dakota	230.855	208.513
128	Ohio_N	1330.772	1250.166
129	Ohio_M	1330.772	1250.166
130	Ohio_S	1330.772	1250.166
131	Oklahoma	883.135	1161.451
132	Oregon	1428.886	1257.629
133	Pennsylvania	4044.529	4106.818
134	Rhode Island	288.446	361.681
135	South Carolina	1452.983	1449.184
136	South Dakota	251.184	254.973
137	Tennessee	2479.462	2039.423
138	Texas	6519.875	8167.227
139	Utah	714.000	857.243
140	Vermont	260.247	214.318
141	Virginia	2140.565	2650.720
142	Washington	2358.385	2171.526
143	West Virginia	245.504	595.007
144	Wisconsin	3397.040	1874.268
145	Wyoming	67.100	169.835

	Locale	P30_15	A30_15
1	Alabama	3381.493	2775.960
2	Arizona	335.320	709.379
3	Arkansas	621.146	681.868
4	California	6198.400	7538.027
5	Colorado	480.758	691.881
6	Connecticut	540.569	631.566
7	Delaware	222.511	243.948
8	DC	.000	.000
9	Florida	1625.569	2566.670
10	Georgia	14230.549	11289.996
11	Idaho	95.111	178.515
12	Illinois_N	911.917	1349.521
13	Illinois_S	455.959	674.760
14	Adams	.981	3.377
15	Allen	61.259	74.430
16	Bartholomew	1.694	6.490
17	Benton	.000	.549
18	Blackford	.000	.838
19	Boone	.000	3.914
20	Brown	.000	1.018
21	Carroll	.000	1.318
22	Cass	1.515	3.840
23	Clark	20.245	25.479
24	Clay	.000	1.728
25	Clinton	.000	2.264
26	Crawford	.000	.770
27	Daviess	.954	2.963
28	Dearborn	1.104	4.900
29	Decatur	.000	1.619
30	DeKalb	.000	2.955
31	Delaware	1.614	9.231
32	Dubois	1.645	4.062
33	Elkhart	99.322	93.100
34	Fayette	.000	1.585
35	Floyd	.000	5.239
36	Fountain	.000	1.131
37	Franklin	5.960	7.650
38	Fulton	.000	1.348
39	Gibson	.000	2.127
40	Grant	8.285	11.028
41	Greene	1.523	3.397
42	Hamilton	38.957	50.345
43	Hancock	.000	4.702
44	Harrison	6.580	9.456
45	Hendricks	2.402	12.388
46	Henry	8.601	9.875
47	Howard	.000	5.563
48	Huntington	2.666	5.045
49	Jackson	1.580	3.991
50	Jasper	.000	2.049
51	Jay	.850	2.213

	Locale	P30_15	A30_15
52	Jefferson	1.643	3.508
53	Jennings	70.244	59.771
54	Johnson	2.077	11.634
55	Knox	.831	3.311
56	Kosciusko	12.480	15.145
57	LaGrange	1.730	4.055
58	Lake	201.718	236.115
59	La Porte	7.102	12.176
60	Lawrence	6.672	9.454
61	Madison	3.944	11.916
62	Marion	80.963	124.365
63	Marshall	15.952	17.297
64	Martin	.000	.637
65	Miami	1.449	3.380
66	Monroe	16.432	23.421
67	Montgomery	.000	2.519
68	Morgan	1.855	6.679
69	Newton	.000	.941
70	Noble	28.900	26.411
71	Ohio	.000	.364
72	Orange	.000	1.291
73	Owen	9.921	9.490
74	Parke	.000	1.088
75	Perry	8.761	8.200
76	Pike	.000	.853
77	Porter	6.490	14.266
78	Posey	44.693	45.562
79	Pulaski	.000	.888
80	Putnam	.000	2.485
81	Randolph	5.334	5.459
82	Ripley	.942	2.784
83	Rush	1.460	2.274
84	St. Joseph	29.839	42.388
85	Scott	29.069	25.158
86	Shelby	.000	2.849
87	Spencer	.000	1.302
88	Starke	.000	1.502
89	Steuben	10.542	10.920
90	Sullivan	.000	1.436
91	Switzerland	.000	.650
92	Tippecanoe	11.943	21.034
93	Tipton	.000	1.038
94	Union	.000	.468
95	Vanderburgh	62.614	61.559
96	Vermillion	.000	1.028
97	Vigo	1.577	7.946
98	Wabash	2.327	4.271
99	Warren	.000	.528
100	Warrick	1.708	5.299
101	Washington	.000	1.887
102	Wayne	.000	4.283

	Locale	P30_15	A30_15
103	Wells	2.561	3.818
104	White	15.302	11.749
105	Whitley	.000	2.194
106	Iowa	205.345	357.061
107	Kansas	456.960	601.030
108	Kentucky_E	586.031	636.754
109	Kentucky_W	390.688	424.502
110	Louisiana	1341.130	1624.968
111	Maine	686.757	582.327
112	Maryland	388.635	697.498
113	Massachusetts	1899.187	1807.909
114	Michigan_E	343.744	625.782
115	Michigan_W	343.744	625.782
116	Minnesota	550.179	824.072
117	Mississippi	1094.135	1071.810
118	Missouri	619.006	896.765
119	Montana	104.886	163.774
120	Nebraska	95.688	184.347
121	Nevada	84.734	241.307
122	New Hampshire	472.451	434.471
123	New Jersey	1955.708	2098.599
124	New Mexico	91.784	216.579
125	New York	2579.340	3166.772
126	North Carolina	14884.869	10908.289
127	North Dakota	53.143	86.222
128	Ohio_N	485.687	657.676
129	Ohio_M	485.687	657.676
130	Ohio_S	485.687	657.676
131	Oklahoma	500.230	677.129
132	Oregon	287.888	490.548
133	Pennsylvania	2963.608	3159.475
134	Rhode Island	691.591	548.146
135	South Carolina	7708.853	5631.613
136	South Dakota	182.431	187.119
137	Tennessee	2144.697	1989.571
138	Texas	4755.063	5879.442
139	Utah	389.670	516.635
140	Vermont	37.484	71.715
141	Virginia	2667.574	2379.113
142	Washington	594.606	939.520
143	West Virginia	83.087	186.496
144	Wisconsin	620.953	842.538
145	Wyoming	88.784	122.012

	Locale	P31_15	A31_15
1	Alabama	21913.396	21978.569
2	Arizona	20588.407	20461.518
3	Arkansas	23935.479	24158.640
4	California	145019.685	144863.598
5	Colorado	17741.280	17721.499
6	Connecticut	11451.575	11400.672
7	Delaware	5477.244	5511.893
8	DC	.000	.000
9	Florida	63126.220	62814.082
10	Georgia	45584.077	45714.149
11	Idaho	9816.254	9881.684
12	Illinois_N	38138.462	38209.052
13	Illinois_S	19069.231	19104.526
14	Adams	206.076	207.106
15	Allen	1464.461	1463.713
16	Bartholomew	625.380	630.834
17	Benton	20.834	20.588
18	Blackford	48.248	48.169
19	Boone	152.425	150.742
20	Brown	41.664	41.262
21	Carroll	608.396	617.856
22	Cass	619.484	627.668
23	Clark	361.437	360.052
24	Clay	68.612	67.892
25	Clinton	749.904	760.840
26	Crawford	29.213	28.867
27	Daviess	406.216	411.284
28	Dearborn	146.513	144.892
29	Decatur	176.834	178.185
30	DeKalb	132.688	131.733
31	Delaware	340.399	337.552
32	Dubois	361.360	364.765
33	Elkhart	715.929	713.919
34	Fayette	60.091	59.379
35	Floyd	439.781	441.770
36	Fountain	61.103	60.923
37	Franklin	61.197	60.574
38	Fulton	98.738	98.990
39	Gibson	205.172	206.459
40	Grant	237.390	236.722
41	Greene	194.416	195.459
42	Hamilton	772.301	764.795
43	Hancock	182.266	180.228
44	Harrison	373.710	377.391
45	Hendricks	613.721	612.938
46	Henry	129.098	128.074
47	Howard	259.589	257.969
48	Huntington	226.332	227.370
49	Jackson	114.335	113.315
50	Jasper	149.427	149.799
51	Jay	179.760	181.481

	Locale	P31_15	A31_15
52	Jefferson	89.382	88.517
53	Jennings	74.900	74.014
54	Johnson	380.678	376.258
55	Knox	130.645	130.217
56	Kosciusko	482.912	485.910
57	LaGrange	161.446	161.337
58	Lake	1514.251	1506.587
59	La Porte	435.625	435.535
60	Lawrence	128.839	127.842
61	Madison	568.073	568.263
62	Marion	3393.928	3389.858
63	Marshall	261.654	262.778
64	Martin	41.241	41.262
65	Miami	101.032	100.345
66	Monroe	369.374	365.991
67	Montgomery	213.807	214.806
68	Morgan	200.328	198.066
69	Newton	38.727	38.360
70	Noble	363.450	366.398
71	Ohio	13.820	13.656
72	Orange	66.848	66.591
73	Owen	60.655	60.034
74	Parke	93.990	94.451
75	Perry	46.704	46.237
76	Pike	32.357	31.974
77	Porter	474.264	471.687
78	Posey	87.608	87.141
79	Pulaski	55.381	55.374
80	Putnam	97.376	96.318
81	Randolph	86.563	86.205
82	Ripley	72.053	71.297
83	Rush	49.186	48.826
84	St. Joseph	913.382	909.098
85	Scott	178.286	179.706
86	Shelby	161.282	160.963
87	Spencer	67.189	66.925
88	Starke	56.958	56.284
89	Steuben	164.182	164.604
90	Sullivan	54.464	53.819
91	Switzerland	24.637	24.345
92	Tippecanoe	654.146	653.252
93	Tipton	91.391	91.862
94	Union	17.743	17.533
95	Vanderburgh	1562.672	1577.956
96	Vermillion	41.251	40.831
97	Vigo	329.937	328.321
98	Wabash	101.183	100.505
99	Warren	23.180	23.000
100	Warrick	148.835	147.074
101	Washington	91.058	90.563
102	Wayne	360.399	362.041

	Locale	P31_15	A31_15
103	Wells	242.807	245.033
104	White	74.732	74.230
105	Whitley	86.507	85.583
106	Iowa	21512.470	21684.734
107	Kansas	16483.419	16579.087
108	Kentucky_E	10081.865	10079.789
109	Kentucky_W	6721.244	6719.860
110	Louisiana	16604.485	16570.977
111	Maine	5355.654	5353.788
112	Maryland	20537.223	20472.304
113	Massachusetts	22837.377	22771.997
114	Michigan_E	17789.377	17733.566
115	Michigan_W	17789.377	17733.566
116	Minnesota	27983.823	28092.966
117	Mississippi	15547.986	15616.293
118	Missouri	26747.874	26801.884
119	Montana	3106.119	3091.159
120	Nebraska	14959.343	15101.892
121	Nevada	7900.068	7848.183
122	New Hampshire	4156.853	4130.887
123	New Jersey	31585.548	31504.161
124	New Mexico	6165.470	6133.252
125	New York	61331.207	61053.670
126	North Carolina	42487.966	42568.163
127	North Dakota	3147.709	3158.173
128	Ohio_N	1435.521	14333.906
129	Ohio_M	1435.521	14333.906
130	Ohio_S	1435.521	14333.906
131	Oklahoma	13242.049	13223.099
132	Oregon	16256.051	16270.043
133	Pennsylvania	54177.734	54243.103
134	Rhode Island	3601.089	3585.782
135	South Carolina	16209.139	16179.853
136	South Dakota	4433.251	4456.561
137	Tennessee	27534.992	27578.804
138	Texas	93536.984	93411.289
139	Utah	10843.964	10849.241
140	Vermont	2838.680	2842.296
141	Virginia	32109.168	32099.892
142	Washington	27970.766	27993.158
143	West Virginia	6002.670	5978.902
144	Wisconsin	32796.995	32972.102
145	Wyoming	1500.804	1490.194

	Locale	P31_15	A31_15
1	Alabama	21913.396	21978.569
2	Arizona	20588.407	20461.518
3	Arkansas	23935.479	24158.640
4	California	145019.685	144863.598
5	Colorado	17741.280	17721.499
6	Connecticut	11451.575	11400.672
7	Delaware	5477.244	5511.893
8	DC	.000	.000
9	Florida	63126.220	62814.082
10	Georgia	45584.077	45714.149
11	Idaho	9816.254	9881.684
12	Illinois_N	38138.462	38209.052
13	Illinois_S	19069.231	19104.526
14	Adams	206.076	207.106
15	Allen	1464.461	1463.713
16	Bartholomew	625.380	630.834
17	Benton	20.834	20.588
18	Blackford	48.248	48.169
19	Boone	152.425	150.742
20	Brown	41.664	41.262
21	Carroll	608.396	617.856
22	Cass	619.484	627.668
23	Clark	361.437	360.052
24	Clay	68.612	67.892
25	Clinton	749.904	760.840
26	Crawford	29.213	28.867
27	Daviess	406.216	411.284
28	Dearborn	146.513	144.892
29	Decatur	176.834	178.185
30	DeKalb	132.688	131.733
31	Delaware	340.399	337.552
32	Dubois	361.360	364.765
33	Elkhart	715.929	713.919
34	Fayette	60.091	59.379
35	Floyd	439.781	441.770
36	Fountain	61.103	60.923
37	Franklin	61.197	60.574
38	Fulton	98.738	98.990
39	Gibson	205.172	206.459
40	Grant	237.390	236.722
41	Greene	194.416	195.459
42	Hamilton	772.301	764.795
43	Hancock	182.266	180.228
44	Harrison	373.710	377.391
45	Hendricks	613.721	612.938
46	Henry	129.098	128.074
47	Howard	259.589	257.969
48	Huntington	226.332	227.370
49	Jackson	114.335	113.315
50	Jasper	149.427	149.799
51	Jay	179.760	181.481

	Locale	P31_15	A31_15
52	Jefferson	89.382	88.517
53	Jennings	74.900	74.014
54	Johnson	380.678	376.258
55	Knox	130.645	130.217
56	Kosciusko	482.912	485.910
57	LaGrange	161.446	161.337
58	Lake	1514.251	1506.587
59	La Porte	435.625	435.535
60	Lawrence	128.839	127.842
61	Madison	568.073	568.263
62	Marion	3393.928	3389.858
63	Marshall	261.654	262.778
64	Martin	41.241	41.262
65	Miami	101.032	100.345
66	Monroe	369.374	365.991
67	Montgomery	213.807	214.806
68	Morgan	200.328	198.066
69	Newton	38.727	38.360
70	Noble	363.450	366.398
71	Ohio	13.820	13.656
72	Orange	66.848	66.591
73	Owen	60.655	60.034
74	Parke	93.990	94.451
75	Perry	46.704	46.237
76	Pike	32.357	31.974
77	Porter	474.264	471.687
78	Posey	87.608	87.141
79	Pulaski	55.381	55.374
80	Putnam	97.376	96.318
81	Randolph	86.563	86.205
82	Ripley	72.053	71.297
83	Rush	49.186	48.826
84	St. Joseph	913.382	909.098
85	Scott	178.286	179.706
86	Shelby	161.282	160.963
87	Spencer	67.189	66.925
88	Starke	56.958	56.284
89	Steuben	164.182	164.604
90	Sullivan	54.464	53.819
91	Switzerland	24.637	24.345
92	Tippecanoe	654.146	653.252
93	Tipton	91.391	91.862
94	Union	17.743	17.533
95	Vanderburgh	1562.672	1577.956
96	Vermillion	41.251	40.831
97	Vigo	329.937	328.321
98	Wabash	101.183	100.505
99	Warren	23.180	23.000
100	Warrick	148.835	147.074
101	Washington	91.058	90.563
102	Wayne	360.399	362.041

	Locale	P31_15	A31_15
103	Wells	242.807	245.033
104	White	74.732	74.230
105	Whitley	86.507	85.583
106	Iowa	21512.470	21684.734
107	Kansas	16483.419	16579.087
108	Kentucky_E	10081.865	10079.789
109	Kentucky_W	6721.244	6719.860
110	Louisiana	16604.485	16570.977
111	Maine	5355.654	5353.788
112	Maryland	20537.223	20472.304
113	Massachusetts	22837.377	22771.997
114	Michigan_E	17789.377	17733.566
115	Michigan_W	17789.377	17733.566
116	Minnesota	27983.823	28092.966
117	Mississippi	15547.986	15616.293
118	Missouri	26747.874	26801.884
119	Montana	3106.119	3091.159
120	Nebraska	14959.343	15101.892
121	Nevada	7900.068	7848.183
122	New Hampshire	4156.853	4130.887
123	New Jersey	31585.548	31504.161
124	New Mexico	6165.470	6133.252
125	New York	61331.207	61053.670
126	North Carolina	42487.966	42568.163
127	North Dakota	3147.709	3158.173
128	Ohio_N	14352.522	14333.906
129	Ohio_M	14352.522	14333.906
130	Ohio_S	14352.522	14333.906
131	Oklahoma	13242.049	13223.099
132	Oregon	16256.051	16270.043
133	Pennsylvania	54177.734	54243.103
134	Rhode Island	3601.089	3585.782
135	South Carolina	16209.139	16179.853
136	South Dakota	4433.251	4456.561
137	Tennessee	27534.992	27578.804
138	Texas	93536.984	93411.289
139	Utah	10843.964	10849.241
140	Vermont	2838.680	2842.296
141	Virginia	32109.168	32099.892
142	Washington	27970.766	27993.158
143	West Virginia	6002.670	5978.902
144	Wisconsin	32796.995	32972.102
145	Wyoming	1500.804	1490.194

	Locale	P33_15	A33_15
1	Alabama	8370.787	3147.839
2	Arizona	2389.071	1293.600
3	Arkansas	2054.446	2093.997
4	California	20864.397	18976.473
5	Colorado	1758.689	1371.326
6	Connecticut	2632.052	1949.947
7	Delaware	644.274	830.396
8	DC	.000	.000
9	Florida	4708.647	3186.187
10	Georgia	3884.452	3145.191
11	Idaho	430.388	386.716
12	Illinois_N	7069.772	7930.173
13	Illinois_S	3534.886	3965.087
14	Adams	38.792	41.019
15	Allen	224.703	402.772
16	Bartholomew	62.102	236.187
17	Benton	3.978	3.517
18	Blackford	44.190	3.340
19	Boone	24.425	36.259
20	Brown	3.561	.000
21	Carroll	24.514	3.879
22	Cass	43.246	11.740
23	Clark	126.223	140.000
24	Clay	8.866	5.925
25	Clinton	13.734	13.782
26	Crawford	.000	.000
27	Daviess	18.089	19.623
28	Dearborn	39.822	18.596
29	Decatur	155.390	28.316
30	DeKalb	227.775	44.512
31	Delaware	98.405	66.713
32	Dubois	12.963	7.713
33	Elkhart	453.066	106.790
34	Fayette	17.967	39.357
35	Floyd	44.548	41.842
36	Fountain	3.526	.000
37	Franklin	33.764	54.566
38	Fulton	44.953	22.034
39	Gibson	10.283	11.640
40	Grant	44.244	35.015
41	Greene	13.800	.000
42	Hamilton	106.508	33.359
43	Hancock	36.321	18.775
44	Harrison	48.955	60.241
45	Hendricks	16.345	22.335
46	Henry	16.615	21.366
47	Howard	25.065	21.699
48	Huntington	67.011	36.899
49	Jackson	36.009	43.026
50	Jasper	38.653	.646
51	Jay	140.766	19.146

	Locale	P33_15	A33_15
52	Jefferson	7.914	48.531
53	Jennings	65.047	69.938
54	Johnson	74.746	56.549
55	Knox	47.876	12.035
56	Kosciusko	122.598	64.547
57	LaGrange	12.442	37.681
58	Lake	1139.246	1710.965
59	La Porte	120.839	124.840
60	Lawrence	84.453	67.209
61	Madison	72.591	25.097
62	Marion	639.282	629.127
63	Marshall	89.014	59.586
64	Martin	19.690	.577
65	Miami	13.357	11.691
66	Monroe	74.366	171.729
67	Montgomery	36.493	11.248
68	Morgan	30.237	20.497
69	Newton	2.978	5.100
70	Noble	96.044	30.192
71	Ohio	.539	.000
72	Orange	3.465	.604
73	Owen	1.274	.657
74	Parke	.493	3.662
75	Perry	7.506	10.156
76	Pike	3.660	.000
77	Porter	94.316	32.135
78	Posey	176.969	299.703
79	Pulaski	12.404	30.585
80	Putnam	10.486	11.218
81	Randolph	29.091	39.079
82	Ripley	19.204	7.972
83	Rush	5.905	30.110
84	St. Joseph	251.145	106.938
85	Scott	9.690	11.652
86	Shelby	114.163	24.233
87	Spencer	12.270	10.528
88	Starke	.529	22.327
89	Steuben	104.156	40.805
90	Sullivan	3.910	.000
91	Switzerland	.000	.000
92	Tippecanoe	48.966	202.909
93	Tipton	6.569	10.542
94	Union	.507	.627
95	Vanderburgh	138.720	66.332
96	Vermillion	11.246	.000
97	Vigo	37.478	27.635
98	Wabash	69.558	35.446
99	Warren	6.403	11.187
100	Warrick	13.384	4.074
101	Washington	32.984	49.395
102	Wayne	43.740	20.767

	Locale	P33_15	A33_15
103	Wells	33.378	20.086
104	White	50.244	18.487
105	Whitley	38.821	8.572
106	Iowa	1717.397	2550.208
107	Kansas	2342.391	3567.472
108	Kentucky_E	1545.700	1497.479
109	Kentucky_W	1030.467	998.320
110	Louisiana	6986.127	10187.936
111	Maine	419.996	329.539
112	Maryland	1692.634	1680.724
113	Massachusetts	3408.956	2960.797
114	Michigan_E	3772.690	4255.821
115	Michigan_W	3772.690	4255.821
116	Minnesota	4431.473	4527.694
117	Mississippi	1976.311	2570.236
118	Missouri	3423.945	3387.798
119	Montana	532.391	783.291
120	Nebraska	677.446	770.193
121	Nevada	723.286	214.729
122	New Hampshire	961.953	828.329
123	New Jersey	4590.201	4593.881
124	New Mexico	699.440	731.477
125	New York	5391.107	5553.319
126	North Carolina	4559.287	3880.551
127	North Dakota	194.273	446.334
128	Ohio_N	3959.526	3693.106
129	Ohio_M	3959.526	3693.106
130	Ohio_S	3959.526	3693.106
131	Oklahoma	3036.659	3581.736
132	Oregon	1745.366	1569.506
133	Pennsylvania	10316.307	10077.678
134	Rhode Island	632.030	243.824
135	South Carolina	2521.741	2146.350
136	South Dakota	238.581	334.159
137	Tennessee	4054.581	4069.769
138	Texas	22192.503	27535.557
139	Utah	1723.585	1931.036
140	Vermont	347.570	289.404
141	Virginia	2352.205	2084.435
142	Washington	2838.770	2793.716
143	West Virginia	841.496	533.873
144	Wisconsin	4970.191	6048.499
145	Wyoming	472.502	710.312

	Locale	P34_15	A34_15
1	Alabama	1598.240	1323.360
2	Arizona	1031.772	1429.260
3	Arkansas	1343.766	1035.511
4	California	8845.212	8706.285
5	Colorado	804.771	861.841
6	Connecticut	1355.710	1987.175
7	Delaware	284.702	366.069
8	DC	.000	.000
9	Florida	2376.848	2531.133
10	Georgia	2645.249	2700.542
11	Idaho	199.429	235.259
12	Illinois_N	4744.948	3786.867
13	Illinois_S	2372.474	1893.434
14	Adams	68.647	61.458
15	Allen	397.119	323.424
16	Bartholomew	162.507	174.915
17	Benton	4.451	1.745
18	Blackford	17.049	2.410
19	Boone	19.968	23.120
20	Brown	.000	.411
21	Carroll	2.072	2.799
22	Cass	39.287	55.178
23	Clark	48.298	44.358
24	Clay	11.145	33.665
25	Clinton	15.603	20.117
26	Crawford	.000	.000
27	Daviess	9.067	8.168
28	Dearborn	8.294	4.470
29	Decatur	32.458	37.089
30	DeKalb	131.648	48.712
31	Delaware	47.087	89.408
32	Dubois	52.486	35.964
33	Elkhart	337.744	489.872
34	Fayette	21.027	76.218
35	Floyd	93.981	31.291
36	Fountain	.000	12.719
37	Franklin	11.000	8.836
38	Fulton	18.143	11.190
39	Gibson	24.665	8.435
40	Grant	40.255	66.417
41	Greene	.000	.983
42	Hamilton	81.898	34.208
43	Hancock	11.092	39.995
44	Harrison	12.144	18.910
45	Hendricks	16.120	16.334
46	Henry	18.706	36.615
47	Howard	32.354	303.357
48	Huntington	31.013	53.404
49	Jackson	43.929	65.373
50	Jasper	3.178	3.349
51	Jay	13.915	11.361

	Locale	P34_15	A34_15
52	Jefferson	34.286	52.614
53	Jennings	45.184	23.082
54	Johnson	76.445	55.761
55	Knox	3.093	2.412
56	Kosciusko	79.332	65.772
57	LaGrange	57.836	40.685
58	Lake	69.391	106.330
59	La Porte	98.238	73.291
60	Lawrence	22.512	38.817
61	Madison	28.600	137.455
62	Marion	359.837	658.614
63	Marshall	121.584	43.161
64	Martin	.308	.260
65	Miami	22.037	7.558
66	Monroe	78.498	62.245
67	Montgomery	41.053	33.272
68	Morgan	15.856	23.540
69	Newton	22.939	5.449
70	Noble	109.850	72.755
71	Ohio	.000	.000
72	Orange	8.053	.272
73	Owen	.832	.296
74	Parke	9.765	1.651
75	Perry	5.426	4.580
76	Pike	.000	.000
77	Porter	31.677	26.248
78	Posey	13.718	45.869
79	Pulaski	16.341	13.965
80	Putnam	61.064	18.068
81	Randolph	19.616	26.318
82	Ripley	.477	1.705
83	Rush	18.632	14.520
84	St. Joseph	184.432	137.615
85	Scott	51.821	7.139
86	Shelby	103.878	29.220
87	Spencer	22.119	7.831
88	Starke	19.546	16.201
89	Steuben	48.156	60.635
90	Sullivan	8.150	3.265
91	Switzerland	9.594	.000
92	Tippecanoe	135.629	248.500
93	Tipton	5.633	11.102
94	Union	.335	1.337
95	Vanderburgh	185.477	91.338
96	Vermillion	.000	39.511
97	Vigo	91.916	44.047
98	Wabash	22.617	28.113
99	Warren	6.445	6.083
100	Warrick	2.673	7.176
101	Washington	37.176	22.454
102	Wayne	58.642	32.655

	Locale	P34_15	A34_15
103	Wells	47.814	16.012
104	White	26.015	37.614
105	Whitley	27.182	26.831
106	Iowa	2032.541	1578.307
107	Kansas	1360.235	1712.665
108	Kentucky_E	1022.292	1104.349
109	Kentucky_W	681.528	736.233
110	Louisiana	526.120	1364.649
111	Maine	237.499	442.345
112	Maryland	808.017	927.055
113	Massachusetts	2235.347	1744.654
114	Michigan_E	3428.655	4272.323
115	Michigan_W	3428.655	4272.323
116	Minnesota	2547.498	1823.911
117	Mississippi	1096.171	1171.782
118	Missouri	2233.714	2864.904
119	Montana	75.012	80.324
120	Nebraska	707.616	550.985
121	Nevada	339.391	156.978
122	New Hampshire	718.059	420.942
123	New Jersey	2482.767	2751.824
124	New Mexico	74.320	120.183
125	New York	4039.024	4246.638
126	North Carolina	4266.139	3445.068
127	North Dakota	208.663	193.587
128	Ohio_N	2646.312	2381.252
129	Ohio_M	2646.312	2381.252
130	Ohio_S	2646.312	2381.252
131	Oklahoma	1486.065	1177.230
132	Oregon	871.083	867.060
133	Pennsylvania	4652.148	3784.893
134	Rhode Island	402.606	204.691
135	South Carolina	2168.030	2330.246
136	South Dakota	250.384	205.759
137	Tennessee	3333.392	3314.894
138	Texas	6708.948	7012.197
139	Utah	499.311	718.820
140	Vermont	227.969	163.579
141	Virginia	1977.001	1976.048
142	Washington	1164.422	2464.894
143	West Virginia	255.666	500.914
144	Wisconsin	4664.527	3688.484
145	Wyoming	40.894	60.087

	Locale	P35_15	A35_15
1	Alabama	6223.634	6366.842
2	Arizona	4855.416	5593.083
3	Arkansas	4318.442	3796.409
4	California	42240.714	41905.524
5	Colorado	2983.549	3776.741
6	Connecticut	6834.133	3450.555
7	Delaware	1052.437	1595.941
8	DC	.000	.000
9	Florida	8315.969	15252.688
10	Georgia	6667.880	9643.444
11	Idaho	860.000	1226.354
12	Illinois_N	15722.152	11927.026
13	Illinois_S	7861.076	5963.513
14	Adams	70.252	130.393
15	Allen	515.826	683.104
16	Bartholomew	164.857	120.521
17	Benton	9.963	10.305
18	Blackford	83.735	38.123
19	Boone	57.670	38.387
20	Brown	8.675	9.678
21	Carroll	65.024	12.526
22	Cass	99.664	90.160
23	Clark	240.781	171.606
24	Clay	15.972	32.198
25	Clinton	37.934	37.808
26	Crawford	.000	7.325
27	Daviess	30.663	31.164
28	Dearborn	47.431	50.044
29	Decatur	419.540	49.636
30	DeKalb	522.700	241.226
31	Delaware	280.174	98.038
32	Dubois	23.133	121.610
33	Elkhart	990.476	695.277
34	Fayette	50.309	15.067
35	Floyd	98.200	191.336
36	Fountain	8.589	10.755
37	Franklin	43.404	73.042
38	Fulton	123.028	25.405
39	Gibson	20.677	56.666
40	Grant	22.105	84.097
41	Greene	13.107	20.652
42	Hamilton	237.395	325.607
43	Hancock	86.111	46.799
44	Harrison	59.227	90.241
45	Hendricks	44.667	107.698
46	Henry	46.429	42.543
47	Howard	30.168	93.908
48	Huntington	163.662	63.246
49	Jackson	101.051	67.246
50	Jasper	101.484	25.082
51	Jay	135.738	33.484

	Locale	P35_15	A35_15
52	Jefferson	21.138	37.307
53	Jennings	142.740	127.871
54	Johnson	207.189	186.084
55	Knox	21.492	29.933
56	Kosciusko	222.497	151.254
57	LaGrange	34.098	99.830
58	Lake	1712.738	1672.585
59	La Porte	317.662	143.012
60	Lawrence	116.126	83.330
61	Madison	153.286	114.361
62	Marion	1569.387	767.496
63	Marshall	200.997	299.652
64	Martin	1.343	6.057
65	Miami	35.399	52.255
66	Monroe	104.340	153.088
67	Montgomery	95.523	93.190
68	Morgan	55.616	59.009
69	Newton	8.583	48.891
70	Noble	213.783	215.382
71	Ohio	1.554	3.465
72	Orange	8.440	27.549
73	Owen	1.989	15.344
74	Parke	1.421	25.777
75	Perry	8.107	10.992
76	Pike	8.914	8.113
77	Porter	230.853	122.072
78	Posey	254.183	281.648
79	Pulaski	25.961	8.445
80	Putnam	1.492	132.433
81	Randolph	21.165	27.069
82	Ripley	38.482	24.708
83	Rush	8.104	15.494
84	St. Joseph	659.928	440.325
85	Scott	19.574	119.758
86	Shelby	52.687	206.752
87	Spencer	8.404	44.969
88	Starke	.000	29.333
89	Steuben	207.654	87.952
90	Sullivan	1.483	29.759
91	Switzerland	.000	25.134
92	Tippecanoe	109.690	176.781
93	Tipton	17.392	9.868
94	Union	1.461	4.449
95	Vanderburgh	293.164	404.390
96	Vermillion	23.536	9.771
97	Vigo	97.748	215.935
98	Wabash	144.799	41.725
99	Warren	18.456	5.944
100	Warrick	36.836	38.299
101	Washington	93.380	39.253
102	Wayne	84.248	134.667

	Locale	P35_15	A35_15
103	Wells	96.203	91.299
104	White	135.313	47.411
105	Whitley	110.161	65.513
106	Iowa	3821.768	3381.201
107	Kansas	3966.568	4685.475
108	Kentucky_E	2838.073	3122.033
109	Kentucky_W	1892.049	2081.355
110	Louisiana	11023.100	11086.892
111	Maine	875.589	1211.450
112	Maryland	3046.165	5235.506
113	Massachusetts	7772.390	6844.349
114	Michigan_E	8560.210	6945.822
115	Michigan_W	8560.210	6945.822
116	Minnesota	9375.336	6651.270
117	Mississippi	3483.819	4061.594
118	Missouri	7120.883	6549.097
119	Montana	761.583	1163.474
120	Nebraska	1494.309	1664.503
121	Nevada	1089.748	2202.392
122	New Hampshire	2265.444	1642.999
123	New Jersey	8409.462	10889.845
124	New Mexico	1007.581	1784.984
125	New York	11266.518	16007.169
126	North Carolina	8191.832	11275.454
127	North Dakota	378.687	569.179
128	Ohio_N	8174.518	6325.786
129	Ohio_M	8174.518	6325.786
130	Ohio_S	8174.518	6325.786
131	Oklahoma	5772.246	5058.488
132	Oregon	3670.160	3571.213
133	Pennsylvania	19680.491	16569.213
134	Rhode Island	1636.766	1226.590
135	South Carolina	5269.534	5317.457
136	South Dakota	514.787	631.342
137	Tennessee	8104.109	8214.138
138	Texas	38863.253	38315.590
139	Utah	3033.840	3189.762
140	Vermont	602.329	635.899
141	Virginia	4108.914	7755.129
142	Washington	5227.401	6723.350
143	West Virginia	1242.119	1601.148
144	Wisconsin	12288.724	6956.370
145	Wyoming	682.416	885.891

	Locale	P36_15	A36_15
1	Alabama	3192.887	3192.887
2	Arizona	5451.554	5451.554
3	Arkansas	1979.320	1979.320
4	California	23726.158	23726.158
5	Colorado	1744.995	1744.995
6	Connecticut	5957.613	5957.613
7	Delaware	820.879	820.879
8	DC	.000	.000
9	Florida	6109.106	6109.106
10	Georgia	7166.772	7166.772
11	Idaho	287.837	287.837
12	Illinois_N	4772.567	4772.567
13	Illinois_S	2386.284	2386.284
14	Adams	289.877	289.877
15	Allen	1068.076	1068.076
16	Bartholomew	439.695	439.695
17	Benton	1.093	1.093
18	Blackford	6.229	6.229
19	Boone	46.648	46.648
20	Brown	1.158	1.158
21	Carroll	7.234	7.234
22	Cass	343.791	343.791
23	Clark	7.630	7.630
24	Clay	203.525	203.525
25	Clinton	65.453	65.453
26	Crawford	.000	.000
27	Daviess	9.724	9.724
28	Dearborn	.000	.000
29	Decatur	167.609	167.609
30	DeKalb	154.972	154.972
31	Delaware	394.159	394.159
32	Dubois	213.324	213.324
33	Elkhart	2751.210	2751.210
34	Fayette	402.965	402.965
35	Floyd	67.096	67.096
36	Fountain	85.999	85.999
37	Franklin	48.076	48.076
38	Fulton	6.964	6.964
39	Gibson	21.957	21.957
40	Grant	334.873	334.873
41	Greene	6.773	6.773
42	Hamilton	150.281	150.281
43	Hancock	217.289	217.289
44	Harrison	106.152	106.152
45	Hendricks	40.583	40.583
46	Henry	185.942	185.942
47	Howard	2023.277	2023.277
48	Huntington	268.071	268.071
49	Jackson	287.212	287.212
50	Jasper	21.074	21.074
51	Jay	41.161	41.161

	Locale	P36_15	A36_15
52	Jefferson	201.222	201.222
53	Jennings	95.364	95.364
54	Johnson	195.204	195.204
55	Knox	1.072	1.072
56	Kosciusko	219.468	219.468
57	LaGrange	161.436	161.436
58	Lake	228.434	228.434
59	La Porte	85.746	85.746
60	Lawrence	194.667	194.667
61	Madison	806.115	806.115
62	Marion	1835.289	1835.289
63	Marshall	241.833	241.833
64	Martin	.000	.000
65	Miami	6.444	6.444
66	Monroe	22.564	22.564
67	Montgomery	164.227	164.227
68	Morgan	24.061	24.061
69	Newton	20.051	20.051
70	Noble	369.399	369.399
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	1.194	1.194
78	Posey	.000	.000
79	Pulaski	1.188	1.188
80	Putnam	89.659	89.659
81	Randolph	82.280	82.280
82	Ripley	1.216	1.216
83	Rush	6.491	6.491
84	St. Joseph	492.457	492.457
85	Scott	7.152	7.152
86	Shelby	94.176	94.176
87	Spencer	19.633	19.633
88	Starke	32.642	32.642
89	Steuben	315.294	315.294
90	Sullivan	20.787	20.787
91	Switzerland	.000	.000
92	Tippecanoe	790.092	790.092
93	Tipton	42.128	42.128
94	Union	.000	.000
95	Vanderburgh	9.891	9.891
96	Vermillion	.000	.000
97	Vigo	43.821	43.821
98	Wabash	46.567	46.567
99	Warren	7.153	7.153
100	Warrick	22.160	22.160
101	Washington	1.228	1.228
102	Wayne	139.205	139.205

	Locale	P36_15	A36_15
103	Wells	47.924	47.924
104	White	201.777	201.777
105	Whitley	156.459	156.459
106	Iowa	2184.858	2184.858
107	Kansas	6327.441	6327.441
108	Kentucky_E	3340.802	3340.802
109	Kentucky_W	2227.202	2227.202
110	Louisiana	2899.721	2899.721
111	Maine	2152.156	2152.156
112	Maryland	1375.534	1375.534
113	Massachusetts	1574.838	1574.838
114	Michigan_E	15777.410	1577.410
115	Michigan_W	15777.410	1577.410
116	Minnesota	1938.717	1938.717
117	Mississippi	3514.628	3514.628
118	Missouri	8785.314	8785.314
119	Montana	93.798	93.798
120	Nebraska	947.190	947.190
121	Nevada	302.348	302.348
122	New Hampshire	390.424	390.424
123	New Jersey	1350.320	1350.320
124	New Mexico	307.369	307.369
125	New York	5254.566	5254.566
126	North Carolina	4743.101	4743.101
127	North Dakota	335.501	335.501
128	Ohio_N	6682.588	6682.588
129	Ohio_M	6682.588	6682.588
130	Ohio_S	6682.588	6682.588
131	Oklahoma	2528.857	2528.857
132	Oregon	2180.487	2180.487
133	Pennsylvania	6263.410	6263.410
134	Rhode Island	214.749	214.749
135	South Carolina	3237.297	3237.297
136	South Dakota	279.495	279.495
137	Tennessee	7313.829	7313.830
138	Texas	11098.552	11098.552
139	Utah	2192.041	2192.041
140	Vermont	312.925	312.925
141	Virginia	5151.191	5151.191
142	Washington	12808.747	12808.747
143	West Virginia	409.757	409.757
144	Wisconsin	5390.297	5390.297
145	Wyoming	45.268	45.268

	Locale	P37_15	A37_15
1	Alabama	246.586	150.242
2	Arizona	102.503	29.487
3	Arkansas	105.632	64.115
4	California	312.102	846.476
5	Colorado	26.521	31.291
6	Connecticut	63.310	26.742
7	Delaware	9.334	54.780
8	DC	.000	.000
9	Florida	66.263	69.699
10	Georgia	84.163	77.194
11	Idaho	2.410	12.191
12	Illinois_N	277.981	229.348
13	Illinois_S	138.990	114.674
14	Adams	1.997	.620
15	Allen	28.110	3.824
16	Bartholomew	8.079	.000
17	Benton	.591	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	1.479	6.291
24	Clay	.105	.000
25	Clinton	.000	.000
26	Crawford	.000	.000
27	Daviess	.000	.603
28	Dearborn	.000	.698
29	Decatur	.106	.000
30	DeKalb	27.904	.000
31	Delaware	7.732	.000
32	Dubois	.000	.000
33	Elkhart	13.663	.618
34	Fayette	.581	.000
35	Floyd	.113	.000
36	Fountain	7.752	.000
37	Franklin	.000	3.768
38	Fulton	3.924	.000
39	Gibson	.000	.000
40	Grant	1.614	.000
41	Greene	1.781	.000
42	Hamilton	6.388	.761
43	Hancock	.135	.000
44	Harrison	.000	4.160
45	Hendricks	2.808	.000
46	Henry	3.592	.000
47	Howard	7.816	.000
48	Huntington	1.912	.615
49	Jackson	5.227	.000
50	Jasper	.000	.000
51	Jay	.000	.538

	Locale	P37_15	A37_15
52	Jefferson	.110	.000
53	Jennings	.688	3.737
54	Johnson	4.163	.000
55	Knox	3.625	.525
56	Kosciusko	19.002	.590
57	LaGrange	.116	.000
58	Lake	217.043	121.647
59	La Porte	16.345	.560
60	Lawrence	17.548	3.269
61	Madison	2.430	.000
62	Marion	38.971	6.904
63	Marshall	4.310	3.679
64	Martin	1.697	.000
65	Miami	.000	.000
66	Monroe	.000	3.790
67	Montgomery	8.057	.000
68	Morgan	.744	.000
69	Newton	1.807	.000
70	Noble	8.242	.000
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	3.659	.000
76	Pike	.644	.000
77	Porter	87.699	.000
78	Posey	.000	22.099
79	Pulaski	1.874	.000
80	Putnam	.000	.000
81	Randolph	3.016	.537
82	Ripley	.000	.596
83	Rush	3.657	.000
84	St. Joseph	18.735	.583
85	Scott	.107	.584
86	Shelby	5.546	.000
87	Spencer	1.770	.000
88	Starke	.000	.000
89	Steuben	5.367	.582
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	21.240	.660
93	Tipton	.608	.000
94	Union	.000	.000
95	Vanderburgh	1.926	.000
96	Vermillion	.000	.000
97	Vigo	3.950	.000
98	Wabash	7.408	.537
99	Warren	.000	.000
100	Warrick	42.805	.000
101	Washington	.111	.000
102	Wayne	8.770	.000

	Locale	P37_15	A37_15
103	Wells	1.989	.000
104	White	.624	.000
105	Whitley	6.887	.000
106	Iowa	103.884	10.008
107	Kansas	29.835	162.600
108	Kentucky_E	101.701	45.508
109	Kentucky_W	67.800	30.338
110	Louisiana	41.601	718.698
111	Maine	8.314	10.542
112	Maryland	88.258	70.266
113	Massachusetts	64.595	61.810
114	Michigan_E	202.073	60.009
115	Michigan_W	202.073	60.009
116	Minnesota	88.782	122.973
117	Mississippi	35.413	112.981
118	Missouri	141.354	84.583
119	Montana	13.664	49.746
120	Nebraska	12.497	.578
121	Nevada	22.847	5.078
122	New Hampshire	42.871	10.038
123	New Jersey	113.909	214.365
124	New Mexico	19.987	48.162
125	New York	185.040	90.911
126	North Carolina	99.767	47.455
127	North Dakota	1.258	9.571
128	Ohio_N	259.255	106.474
129	Ohio_M	259.255	106.474
130	Ohio_S	259.255	106.474
131	Oklahoma	57.881	149.287
132	Oregon	129.621	46.505
133	Pennsylvania	656.668	413.814
134	Rhode Island	37.898	.601
135	South Carolina	82.704	23.995
136	South Dakota	6.629	.584
137	Tennessee	198.454	84.877
138	Texas	378.469	1553.264
139	Utah	86.706	105.580
140	Vermont	3.027	3.669
141	Virginia	81.395	44.450
142	Washington	157.060	132.837
143	West Virginia	115.734	22.018
144	Wisconsin	300.144	25.352
145	Wyoming	1.360	49.435

	Locale	P38_15	A38_15
1	Alabama	61.458	73.769
2	Arizona	94.728	79.027
3	Arkansas	30.587	35.269
4	California	678.261	618.355
5	Colorado	84.769	73.209
6	Connecticut	54.819	51.892
7	Delaware	9.836	11.963
8	DC	.000	.000
9	Florida	283.573	262.754
10	Georgia	186.769	305.433
11	Idaho	17.737	19.390
12	Illinois_N	174.505	150.000
13	Illinois_S	87.252	75.000
14	Adams	.186	.227
15	Allen	10.668	8.887
16	Bartholomew	.929	.630
17	Benton	.032	.098
18	Blackford	.075	.069
19	Boone	.609	.511
20	Brown	.013	.013
21	Carroll	.056	.143
22	Cass	.342	.307
23	Clark	1.550	1.217
24	Clay	.035	.062
25	Clinton	.191	.191
26	Crawford	.015	.007
27	Daviess	.129	.171
28	Dearborn	.250	.196
29	Decatur	.152	.278
30	DeKalb	.422	.298
31	Delaware	1.331	.991
32	Dubois	1.533	1.048
33	Elkhart	5.974	5.273
34	Fayette	.098	.143
35	Floyd	.826	.708
36	Fountain	.031	.081
37	Franklin	.083	.084
38	Fulton	.059	.107
39	Gibson	.135	.129
40	Grant	.538	.550
41	Greene	.105	.128
42	Hamilton	5.335	4.567
43	Hancock	.282	.463
44	Harrison	.281	.204
45	Hendricks	1.591	1.093
46	Henry	.247	.464
47	Howard	.773	.507
48	Huntington	.305	.347
49	Jackson	.322	.375
50	Jasper	.159	.163
51	Jay	.073	.150

	Locale	P38_15	A38_15
52	Jefferson	.212	.168
53	Jennings	.096	1.207
54	Johnson	.966	.688
55	Knox	.424	.451
56	Kosciusko	.664	.664
57	LaGrange	.336	.383
58	Lake	6.487	4.553
59	La Porte	1.027	1.011
60	Lawrence	.193	.164
61	Madison	.726	.682
62	Marion	28.151	22.237
63	Marshall	.663	.645
64	Martin	.026	.049
65	Miami	.227	.394
66	Monroe	.757	1.283
67	Montgomery	.207	.174
68	Morgan	.484	.320
69	Newton	.037	.082
70	Noble	.269	.795
71	Ohio	.000	.000
72	Orange	.055	.063
73	Owen	.080	.218
74	Parke	.074	.074
75	Perry	.068	.212
76	Pike	.103	.078
77	Porter	1.755	1.422
78	Posey	.297	.457
79	Pulaski	.131	.234
80	Putnam	.065	.067
81	Randolph	.130	.099
82	Ripley	.494	.359
83	Rush	.135	.140
84	St. Joseph	5.773	5.096
85	Scott	.081	.534
86	Shelby	.887	.521
87	Spencer	.085	.189
88	Starke	.051	.052
89	Steuben	.265	.305
90	Sullivan	.073	.132
91	Switzerland	.015	.015
92	Tippecanoe	1.009	1.149
93	Tipton	.088	.133
94	Union	.076	.076
95	Vanderburgh	4.662	4.422
96	Vermillion	.013	.053
97	Vigo	1.179	1.074
98	Wabash	.192	.170
99	Warren	.077	.078
100	Warrick	.180	.249
101	Washington	.109	.060
102	Wayne	1.201	.838

	Locale	P38_15	A38_15
103	Wells	.141	1.168
104	White	.170	.312
105	Whitley	.241	.183
106	Iowa	41.418	43.709
107	Kansas	48.295	44.657
108	Kentucky_E	29.676	35.113
109	Kentucky_W	19.784	23.409
110	Louisiana	59.681	54.293
111	Maine	13.599	19.021
112	Maryland	79.197	67.847
113	Massachusetts	114.066	109.330
114	Michigan_E	79.739	65.872
115	Michigan_W	79.739	65.872
116	Minnesota	118.999	98.549
117	Mississippi	25.936	37.697
118	Missouri	94.420	91.376
119	Montana	10.736	10.548
120	Nebraska	26.852	26.933
121	Nevada	34.731	29.165
122	New Hampshire	20.569	20.196
123	New Jersey	192.704	200.121
124	New Mexico	17.144	15.010
125	New York	257.584	284.138
126	North Carolina	146.875	195.925
127	North Dakota	10.007	10.891
128	Ohio_N	6.589	28.024
129	Ohio_M	6.589	28.024
130	Ohio_S	6.589	28.024
131	Oklahoma	46.770	43.500
132	Oregon	64.116	58.762
133	Pennsylvania	178.622	169.145
134	Rhode Island	16.187	15.861
135	South Carolina	51.243	82.288
136	South Dakota	10.575	12.495
137	Tennessee	100.238	104.256
138	Texas	433.244	367.456
139	Utah	42.077	37.558
140	Vermont	6.503	7.702
141	Virginia	94.022	89.971
142	Washington	99.268	91.945
143	West Virginia	18.380	14.458
144	Wisconsin	89.779	83.012
145	Wyoming	4.990	4.183

	Locale	P39_15	A39_15
1	Alabama	676.370	525.001
2	Arizona	674.001	793.235
3	Arkansas	539.787	331.111
4	California	3868.734	4411.037
5	Colorado	286.849	540.727
6	Connecticut	435.335	409.836
7	Delaware	71.163	101.948
8	DC	.000	.000
9	Florida	1124.151	2309.489
10	Georgia	989.116	1100.877
11	Idaho	86.813	177.398
12	Illinois_N	717.161	982.035
13	Illinois_S	358.581	491.017
14	Adams	25.618	4.272
15	Allen	95.140	43.224
16	Bartholomew	50.967	9.251
17	Benton	1.897	.991
18	Blackford	.639	1.511
19	Boone	5.164	7.059
20	Brown	.065	1.836
21	Carroll	13.060	2.376
22	Cass	19.561	4.729
23	Clark	40.258	12.582
24	Clay	11.720	3.117
25	Clinton	5.681	4.084
26	Crawford	.000	1.390
27	Daviess	2.612	3.577
28	Dearborn	.000	6.790
29	Decatur	9.713	2.921
30	DeKalb	9.040	5.330
31	Delaware	26.788	14.310
32	Dubois	236.806	4.942
33	Elkhart	290.058	23.752
34	Fayette	24.364	2.858
35	Floyd	19.337	9.450
36	Fountain	4.815	2.040
37	Franklin	2.691	2.750
38	Fulton	.390	2.432
39	Gibson	1.229	3.836
40	Grant	23.761	7.878
41	Greene	.695	3.918
42	Hamilton	19.767	34.135
43	Hancock	14.688	8.481
44	Harrison	31.655	4.857
45	Hendricks	2.770	18.863
46	Henry	15.615	5.338
47	Howard	125.407	10.034
48	Huntington	15.008	4.841
49	Jackson	18.046	4.908
50	Jasper	1.517	3.697
51	Jay	4.148	2.415

	Locale	P39_15	A39_15
52	Jefferson	11.606	3.945
53	Jennings	5.339	3.563
54	Johnson	14.677	17.973
55	Knox	.360	4.432
56	Kosciusko	22.604	9.079
57	LaGrange	19.842	4.806
58	Lake	20.934	55.681
59	La Porte	10.401	12.647
60	Lawrence	11.210	5.288
61	Madison	58.556	16.002
62	Marion	144.720	103.896
63	Marshall	15.641	5.717
64	Martin	.000	1.149
65	Miami	11.635	3.995
66	Monroe	3.790	15.996
67	Montgomery	9.194	4.544
68	Morgan	1.732	9.356
69	Newton	3.047	1.698
70	Noble	22.736	5.731
71	Ohio	.000	.657
72	Orange	55.191	2.329
73	Owen	.000	2.731
74	Parke	.319	1.963
75	Perry	8.876	2.085
76	Pike	.000	1.539
77	Porter	1.771	17.721
78	Posey	.000	3.259
79	Pulaski	.399	1.602
80	Putnam	5.019	4.482
81	Randolph	4.913	3.054
82	Ripley	6.024	3.274
83	Rush	.363	1.986
84	St. Joseph	33.167	33.047
85	Scott	2.402	2.853
86	Shelby	15.959	5.138
87	Spencer	24.651	2.349
88	Starke	2.138	2.709
89	Steuben	17.984	4.039
90	Sullivan	1.164	2.591
91	Switzerland	.391	1.172
92	Tippecanoe	72.499	20.199
93	Tipton	2.358	1.872
94	Union	.000	.844
95	Vanderburgh	14.260	20.477
96	Vermillion	.000	1.854
97	Vigo	4.416	12.046
98	Wabash	2.914	3.985
99	Warren	.400	.953
100	Warrick	1.595	7.080
101	Washington	60.232	3.404
102	Wayne	28.999	7.726

	Locale	P39_15	A39_15
103	Wells	3.036	3.420
104	White	16.944	2.945
105	Whitley	10.309	3.957
106	Iowa	398.858	342.730
107	Kansas	514.075	320.532
108	Kentucky_E	306.540	292.667
109	Kentucky_W	204.360	195.110
110	Louisiana	203.977	529.989
111	Maine	180.797	156.686
112	Maryland	233.430	692.948
113	Massachusetts	324.540	759.699
114	Michigan_E	2908.806	599.561
115	Michigan_W	1454.403	599.561
116	Minnesota	532.015	629.112
117	Mississippi	1168.182	337.313
118	Missouri	911.237	681.554
119	Montana	33.537	113.002
120	Nebraska	155.376	202.034
121	Nevada	97.787	309.472
122	New Hampshire	73.148	160.710
123	New Jersey	369.005	1036.300
124	New Mexico	52.141	228.327
125	New York	980.576	2202.796
126	North Carolina	3323.374	1091.546
127	North Dakota	52.379	73.655
128	Ohio_N	604.066	441.609
129	Ohio_M	604.066	441.609
130	Ohio_S	604.066	441.609
131	Oklahoma	255.921	410.271
132	Oregon	344.378	444.245
133	Pennsylvania	1153.355	1450.693
134	Rhode Island	85.943	127.760
135	South Carolina	389.682	511.910
136	South Dakota	70.529	90.067
137	Tennessee	1316.535	720.406
138	Texas	1651.382	2884.992
139	Utah	354.475	302.813
140	Vermont	116.502	75.706
141	Virginia	1156.373	936.341
142	Washington	994.811	767.070
143	West Virginia	58.805	210.180
144	Wisconsin	895.567	662.067
145	Wyoming	9.901	59.992

	Locale	P40_15	A40_15
1	Alabama	3174.258	3557.862
2	Arizona	2361.211	3171.555
3	Arkansas	2772.585	1952.989
4	California	17845.220	16807.217
5	Colorado	2151.435	1992.358
6	Connecticut	1388.283	1468.858
7	Delaware	625.668	412.012
8	DC	.000	.000
9	Florida	7569.730	8554.506
10	Georgia	10547.272	6679.386
11	Idaho	1090.461	1120.040
12	Illinois_N	4388.028	3488.805
13	Illinois_S	2194.014	1744.403
14	Adams	21.995	45.201
15	Allen	190.878	149.622
16	Bartholomew	67.538	33.034
17	Benton	2.263	11.442
18	Blackford	5.185	8.357
19	Boone	16.540	22.730
20	Brown	4.514	7.260
21	Carroll	64.222	7.652
22	Cass	66.492	23.362
23	Clark	45.309	77.090
24	Clay	7.441	13.047
25	Clinton	79.240	14.859
26	Crawford	3.172	7.955
27	Daviess	43.018	23.462
28	Dearborn	15.899	22.477
29	Decatur	18.822	10.726
30	DeKalb	14.341	54.586
31	Delaware	37.836	49.169
32	Dubois	39.410	106.124
33	Elkhart	137.439	423.680
34	Fayette	6.526	9.204
35	Floyd	46.961	62.507
36	Fountain	6.575	7.064
37	Franklin	6.635	11.010
38	Fulton	10.565	20.995
39	Gibson	21.869	12.351
40	Grant	30.676	28.012
41	Greene	21.686	15.536
42	Hamilton	106.427	118.655
43	Hancock	19.781	29.121
44	Harrison	39.685	26.016
45	Hendricks	67.418	65.339
46	Henry	19.294	19.938
47	Howard	28.030	35.298
48	Huntington	25.216	20.187
49	Jackson	13.359	30.654
50	Jasper	15.990	15.486
51	Jay	19.095	10.616

	Locale	P40_15	A40_15
52	Jefferson	10.704	16.537
53	Jennings	47.998	15.310
54	Johnson	42.619	125.654
55	Knox	14.064	17.786
56	Kosciusko	58.123	45.676
57	LaGrange	18.405	119.438
58	Lake	169.077	191.036
59	La Porte	47.702	52.361
60	Lawrence	14.863	22.592
61	Madison	62.876	60.758
62	Marion	404.972	372.225
63	Marshall	34.226	53.172
64	Martin	4.422	4.164
65	Miami	11.813	19.115
66	Monroe	46.472	54.840
67	Montgomery	22.827	16.788
68	Morgan	22.893	40.976
69	Newton	4.196	5.467
70	Noble	56.573	21.619
71	Ohio	1.501	2.117
72	Orange	7.200	29.704
73	Owen	12.724	15.347
74	Parke	10.033	14.911
75	Perry	10.491	9.515
76	Pike	3.514	8.035
77	Porter	52.166	64.011
78	Posey	15.486	11.011
79	Pulaski	5.942	5.671
80	Putnam	10.564	17.523
81	Randolph	9.327	28.952
82	Ripley	7.814	16.940
83	Rush	6.221	9.193
84	St. Joseph	115.884	132.818
85	Scott	36.410	12.270
86	Shelby	17.339	16.544
87	Spencer	7.238	14.868
88	Starke	6.186	24.190
89	Steuben	23.529	15.517
90	Sullivan	5.915	12.901
91	Switzerland	2.676	3.773
92	Tippecanoe	77.033	67.999
93	Tipton	9.753	8.935
94	Union	1.927	3.222
95	Vanderburgh	204.238	78.914
96	Vermillion	4.472	5.969
97	Vigo	36.554	44.681
98	Wabash	11.847	21.102
99	Warren	2.507	6.152
100	Warrick	17.222	29.677
101	Washington	9.824	22.930
102	Wayne	38.483	27.620

	Locale	P40_15	A40_15
103	Wells	26.857	14.521
104	White	9.037	14.706
105	Whitley	9.384	22.239
106	Iowa	2400.119	1540.123
107	Kansas	1875.280	1193.605
108	Kentucky_E	1350.714	1339.687
109	Kentucky_W	900.476	893.125
110	Louisiana	1905.753	2200.569
111	Maine	754.718	1037.664
112	Maryland	2288.985	2500.724
113	Massachusetts	2942.427	2886.417
114	Michigan_E	2052.479	2295.233
115	Michigan_W	2052.479	2295.233
116	Minnesota	3169.346	2884.573
117	Mississippi	2092.038	2112.812
118	Missouri	3130.462	2752.145
119	Montana	347.971	655.911
120	Nebraska	1629.140	788.059
121	Nevada	900.120	1073.587
122	New Hampshire	583.687	799.423
123	New Jersey	3915.854	3697.236
124	New Mexico	671.396	820.783
125	New York	7495.315	7884.111
126	North Carolina	7179.530	8613.983
127	North Dakota	357.263	286.078
128	Ohio_N	1678.781	1798.432
129	Ohio_M	1678.781	1798.432
130	Ohio_S	1678.781	1798.432
131	Oklahoma	1565.598	1492.401
132	Oregon	1861.038	3454.628
133	Pennsylvania	6558.454	6226.026
134	Rhode Island	508.590	580.174
135	South Carolina	3151.849	3821.959
136	South Dakota	547.769	384.044
137	Tennessee	3555.638	3671.975
138	Texas	11111.517	11298.369
139	Utah	1293.369	1113.048
140	Vermont	317.191	425.890
141	Virginia	3885.130	4760.816
142	Washington	3194.471	3718.496
143	West Virginia	658.528	1067.870
144	Wisconsin	3731.687	3658.716
145	Wyoming	168.247	248.008

	Locale	P41_15	A41_15
1	Alabama	4753.382	6570.908
2	Arizona	4723.599	3986.720
3	Arkansas	3762.730	5852.010
4	California	34266.721	29152.102
5	Colorado	2750.114	2738.861
6	Connecticut	6819.435	4472.177
7	Delaware	463.881	907.057
8	DC	.000	.000
9	Florida	7868.056	7098.562
10	Georgia	6062.147	7761.509
11	Idaho	756.011	1475.221
12	Illinois_N	13746.134	12494.746
13	Illinois_S	6873.067	6247.373
14	Adams	66.106	71.899
15	Allen	493.827	604.092
16	Bartholomew	171.967	236.534
17	Benton	10.393	10.639
18	Blackford	87.346	46.248
19	Boone	60.157	30.554
20	Brown	9.049	5.031
21	Carroll	67.828	132.532
22	Cass	103.963	143.661
23	Clark	178.358	119.355
24	Clay	16.661	9.782
25	Clinton	39.571	137.215
26	Crawford	.000	.000
27	Daviess	25.008	71.020
28	Dearborn	41.396	21.203
29	Decatur	437.636	238.518
30	DeKalb	545.245	532.924
31	Delaware	292.259	223.692
32	Dubois	24.130	57.562
33	Elkhart	1026.049	674.054
34	Fayette	52.479	31.423
35	Floyd	102.435	94.559
36	Fountain	8.960	79.567
37	Franklin	1.670	1.429
38	Fulton	128.335	108.483
39	Gibson	21.569	32.751
40	Grant	23.059	39.123
41	Greene	13.673	43.140
42	Hamilton	238.824	187.405
43	Hancock	89.826	46.519
44	Harrison	13.640	54.860
45	Hendricks	46.593	87.613
46	Henry	48.431	60.324
47	Howard	31.469	96.720
48	Huntington	163.607	120.948
49	Jackson	105.409	102.740
50	Jasper	105.861	65.212
51	Jay	135.370	89.993

	Locale	P41_15	A41_15
52	Jefferson	22.050	13.098
53	Jennings	105.648	58.786
54	Johnson	216.126	146.327
55	Knox	16.340	48.360
56	Kosciusko	225.266	339.690
57	LaGrange	35.569	29.414
58	Lake	378.833	2261.754
59	La Porte	324.883	342.815
60	Lawrence	83.299	207.197
61	Madison	159.898	142.883
62	Marion	1557.176	1348.109
63	Marshall	167.090	147.913
64	Martin	1.401	19.461
65	Miami	36.926	21.338
66	Monroe	64.984	38.098
67	Montgomery	99.643	145.103
68	Morgan	58.015	36.320
69	Newton	8.953	21.742
70	Noble	223.004	230.088
71	Ohio	1.621	.804
72	Orange	8.804	7.536
73	Owen	2.075	1.604
74	Parke	1.482	10.071
75	Perry	8.457	38.633
76	Pike	9.298	10.581
77	Porter	240.811	950.841
78	Posey	9.400	8.046
79	Pulaski	27.081	34.661
80	Putnam	1.557	1.333
81	Randolph	15.859	39.800
82	Ripley	33.250	17.064
83	Rush	8.454	39.430
84	St. Joseph	681.645	550.615
85	Scott	13.661	28.724
86	Shelby	54.960	88.127
87	Spencer	8.766	23.917
88	Starke	.000	.000
89	Steuben	209.873	167.924
90	Sullivan	1.547	.767
91	Switzerland	.000	.000
92	Tippecanoe	106.788	290.606
93	Tipton	18.142	23.849
94	Union	1.524	.756
95	Vanderburgh	305.809	370.047
96	Vermillion	24.551	12.583
97	Vigo	101.964	100.799
98	Wabash	144.834	143.629
99	Warren	19.252	10.109
100	Warrick	38.424	416.060
101	Washington	97.408	52.801
102	Wayne	87.881	159.995

	Locale	P41_15	A41_15
103	Wells	100.352	98.496
104	White	141.150	78.072
105	Whitley	114.912	121.470
106	Iowa	3870.787	5417.106
107	Kansas	2255.953	3121.400
108	Kentucky_E	2433.847	2846.347
109	Kentucky_W	1622.564	1897.564
110	Louisiana	3181.341	2931.313
111	Maine	791.351	834.754
112	Maryland	2364.391	3048.547
113	Massachusetts	7392.330	5482.052
114	Michigan_E	8234.981	6877.340
115	Michigan_W	8234.981	6877.340
116	Minnesota	8356.599	7582.120
117	Mississippi	2326.603	2980.071
118	Missouri	6449.174	6709.437
119	Montana	218.740	364.597
120	Nebraska	1552.074	2782.663
121	Nevada	1077.986	993.532
122	New Hampshire	2246.987	1650.076
123	New Jersey	6291.424	5912.736
124	New Mexico	493.685	672.065
125	New York	10700.393	9684.475
126	North Carolina	7995.986	8352.023
127	North Dakota	284.260	435.875
128	Ohio_N	7294.927	6920.752
129	Ohio_M	7294.927	6920.752
130	Ohio_S	7294.927	6920.752
131	Oklahoma	4293.572	3484.273
132	Oregon	3290.276	4059.171
133	Pennsylvania	15740.445	18091.748
134	Rhode Island	1700.407	1357.058
135	South Carolina	5219.143	4320.684
136	South Dakota	530.234	774.250
137	Tennessee	7471.406	7740.850
138	Texas	22564.185	20526.910
139	Utah	1942.860	2560.903
140	Vermont	585.853	539.532
141	Virginia	3771.735	4826.094
142	Washington	3915.596	5496.512
143	West Virginia	1040.894	1870.246
144	Wisconsin	12525.373	12339.968
145	Wyoming	139.759	124.376

	Locale	P43_15	A43_15
1	Alabama	2524.932	2784.643
2	Arizona	3814.975	3598.354
3	Arkansas	1592.442	1595.680
4	California	21214.394	20828.204
5	Colorado	2600.568	2535.589
6	Connecticut	1971.059	1904.191
7	Delaware	490.308	475.620
8	DC	.000	.000
9	Florida	11107.233	10672.870
10	Georgia	5294.544	7982.612
11	Idaho	853.175	812.180
12	Illinois_N	4722.985	4527.331
13	Illinois_S	2361.493	2263.666
14	Adams	20.547	18.974
15	Allen	207.879	210.336
16	Bartholomew	44.492	41.658
17	Benton	4.766	4.402
18	Blackford	7.266	6.710
19	Boone	33.951	31.352
20	Brown	8.830	8.154
21	Carroll	11.429	10.554
22	Cass	22.745	21.516
23	Clark	60.512	59.359
24	Clay	14.993	13.845
25	Clinton	19.642	18.138
26	Crawford	6.683	6.172
27	Daviess	17.203	15.886
28	Dearborn	32.656	30.156
29	Decatur	14.047	12.972
30	DeKalb	25.636	23.674
31	Delaware	68.821	64.098
32	Dubois	23.767	22.503
33	Elkhart	114.232	138.437
34	Fayette	13.747	12.695
35	Floyd	45.451	41.971
36	Fountain	9.813	9.062
37	Franklin	13.224	12.212
38	Fulton	11.695	10.800
39	Gibson	18.448	17.036
40	Grant	37.886	37.786
41	Greene	18.843	17.916
42	Hamilton	164.169	164.003
43	Hancock	40.788	37.666
44	Harrison	23.360	21.572
45	Hendricks	90.717	84.584
46	Henry	25.674	26.616
47	Howard	48.257	44.562
48	Huntington	23.281	22.071
49	Jackson	23.604	22.331
50	Jasper	17.778	16.417
51	Jay	11.614	10.725

	Locale	P43_15	A43_15
52	Jefferson	18.974	18.076
53	Jennings	17.136	37.568
54	Johnson	86.438	80.523
55	Knox	21.317	19.685
56	Kosciusko	43.667	43.949
57	LaGrange	23.114	21.929
58	Lake	267.791	250.438
59	La Porte	60.823	56.688
60	Lawrence	25.434	23.994
61	Madison	76.958	72.131
62	Marion	499.677	483.462
63	Marshall	27.495	28.815
64	Martin	5.526	5.103
65	Miami	19.212	18.231
66	Monroe	76.931	74.569
67	Montgomery	21.852	20.179
68	Morgan	44.998	42.180
69	Newton	8.166	7.541
70	Noble	27.561	35.219
71	Ohio	3.162	2.920
72	Orange	11.200	10.342
73	Owen	13.134	15.482
74	Parke	9.442	8.719
75	Perry	10.029	12.223
76	Pike	7.403	6.836
77	Porter	85.225	79.245
78	Posey	15.672	17.764
79	Pulaski	7.705	7.115
80	Putnam	21.554	19.904
81	Randolph	14.688	13.564
82	Ripley	15.748	14.542
83	Rush	9.549	9.312
84	St. Joseph	158.937	156.269
85	Scott	13.720	22.182
86	Shelby	24.712	22.821
87	Spencer	11.295	10.431
88	Starke	13.031	12.033
89	Steuben	19.426	21.191
90	Sullivan	12.460	11.506
91	Switzerland	5.636	5.205
92	Tippecanoe	97.147	93.394
93	Tipton	9.004	8.314
94	Union	4.059	3.748
95	Vanderburgh	98.483	111.826
96	Vermillion	8.915	8.233
97	Vigo	57.933	54.031
98	Wabash	19.168	18.200
99	Warren	4.581	4.230
100	Warrick	34.050	32.021
101	Washington	16.370	15.117
102	Wayne	37.156	34.311

	Locale	P43_15	A43_15
103	Wells	16.449	15.765
104	White	14.165	13.606
105	Whitley	19.029	17.572
106	Iowa	1648.321	1582.828
107	Kansas	1541.563	1487.625
108	Kentucky_E	1407.542	1446.433
109	Kentucky_W	938.361	964.288
110	Louisiana	2548.924	2419.584
111	Maine	753.564	794.018
112	Maryland	3332.658	3120.312
113	Massachusetts	3653.687	3638.557
114	Michigan_E	2883.522	2737.909
115	Michigan_W	2883.522	2737.909
116	Minnesota	3025.643	2891.769
117	Mississippi	1622.271	1733.471
118	Missouri	3277.859	3172.455
119	Montana	543.471	508.995
120	Nebraska	971.659	919.119
121	Nevada	1488.374	1399.959
122	New Hampshire	772.916	787.292
123	New Jersey	4983.970	4885.056
124	New Mexico	1098.115	1017.516
125	New York	10594.104	10265.572
126	North Carolina	5249.671	6282.386
127	North Dakota	354.236	338.420
128	Ohio_N	2123.869	2035.951
129	Ohio_M	2123.869	2035.951
130	Ohio_S	2123.869	2035.951
131	Oklahoma	1973.154	1900.001
132	Oregon	2136.548	2037.653
133	Pennsylvania	6976.948	6853.690
134	Rhode Island	614.448	633.162
135	South Carolina	2461.974	3042.370
136	South Dakota	433.165	440.769
137	Tennessee	3464.714	3530.240
138	Texas	13875.051	13392.359
139	Utah	1456.345	1416.068
140	Vermont	364.098	343.340
141	Virginia	4503.227	4398.082
142	Washington	3689.139	3513.686
143	West Virginia	1010.840	939.942
144	Wisconsin	3184.137	3067.192
145	Wyoming	288.527	269.742

APPENDIX F

PRODUCTIONS AND ATTRACTIONS 2030

Table Notes

The tables in this appendix give the projected volume of traffic produced and attracted by areas included in this study for each commodity. The area appears under the column label Locale and includes the 145 different areas included in the freight study. From line 14 to line 105 we have the counties of Indiana. States represented by two or more nodes are evident here as well.

The data columns labeled P are productions and those labeled A are attractions. The next two digits represent the commodity groups SCTG 1, SCTG 2, and so forth. The 30 represents the forecast year of the data, 2030.

The data are actually given here to three decimal places. This is because the data as published is in thousands of tons. In many cases this would completely eliminate flows into Indiana counties of several goods. It is for this reason that three decimal places were used. Programs used later would multiply flow estimates by 1,000 to yield tons of commodities. The reader should judge the reliability of the data given these facts.

	Locale	P01_30	A01_30
1	Alabama	354.888	351.339
2	Arizona	359.631	172.821
3	Arkansas	319.427	572.501
4	California	2006.389	1870.501
5	Colorado	148.045	225.953
6	Connecticut	70.476	88.921
7	Delaware	18.779	112.504
8	DC	.000	.000
9	Florida	721.926	609.360
10	Georgia	471.180	814.647
11	Idaho	58.285	227.290
12	Illinois_N	314.877	554.466
13	Illinois_S	157.439	277.233
14	Adams	7.099	3.981
15	Allen	26.606	18.950
16	Bartholomew	19.788	14.656
17	Benton	1.212	.000
18	Blackford	.181	.465
19	Boone	2.189	.156
20	Brown	.000	.097
21	Carroll	9.184	18.355
22	Cass	.213	15.984
23	Clark	30.225	3.332
24	Clay	.229	.098
25	Clinton	1.459	21.752
26	Crawford	.000	.000
27	Daviess	1.527	11.077
28	Dearborn	.000	.141
29	Decatur	.235	3.718
30	DeKalb	.281	.721
31	Delaware	3.403	1.292
32	Dubois	164.754	8.544
33	Elkhart	102.536	7.395
34	Fayette	1.169	.000
35	Floyd	11.710	8.208
36	Fountain	.000	.571
37	Franklin	.000	.117
38	Fulton	.000	1.512
39	Gibson	.000	4.234
40	Grant	3.068	1.990
41	Greene	.216	3.463
42	Hamilton	9.866	2.153
43	Hancock	2.150	.153
44	Harrison	21.094	10.092
45	Hendricks	.464	9.167
46	Henry	3.329	.489
47	Howard	8.475	1.539
48	Huntington	.000	4.236
49	Jackson	1.391	.357
50	Jasper	.244	2.355
51	Jay	1.222	3.872

	Locale	P01_30	A01_30
52	Jefferson	.250	.214
53	Jennings	.000	.000
54	Johnson	3.240	.112
55	Knox	.194	1.097
56	Kosciusko	7.481	9.591
57	LaGrange	8.252	2.090
58	Lake	5.661	10.819
59	La Porte	3.869	5.312
60	Lawrence	.209	.538
61	Madison	9.461	7.394
62	Marion	29.981	39.139
63	Marshall	1.575	4.801
64	Martin	.000	.502
65	Miami	7.299	.500
66	Monroe	1.938	1.150
67	Montgomery	.000	3.848
68	Morgan	.310	.133
69	Newton	1.332	.095
70	Noble	1.511	8.092
71	Ohio	.000	.000
72	Orange	37.581	.552
73	Owen	.000	.108
74	Parke	.219	1.642
75	Perry	5.795	.085
76	Pike	.000	.000
77	Porter	1.226	3.315
78	Posey	.000	.627
79	Pulaski	.238	.704
80	Putnam	.000	.103
81	Randolph	.203	.671
82	Ripley	4.354	.107
83	Rush	.000	.220
84	St. Joseph	4.017	7.106
85	Scott	1.438	3.850
86	Shelby	7.424	1.676
87	Spencer	15.967	.547
88	Starke	.208	.000
89	Steuben	.238	2.572
90	Sullivan	.000	.000
91	Switzerland	.319	.000
92	Tippecanoe	22.402	8.238
93	Tipton	.000	1.600
94	Union	.000	.000
95	Vanderburgh	10.058	37.629
96	Vermillion	.000	.067
97	Vigo	1.385	2.451
98	Wabash	.203	.521
99	Warren	.000	.103
100	Warrick	.268	.000
101	Washington	44.366	.651
102	Wayne	13.542	5.727

	Locale	P01_30	A01_30
103	Wells	.266	5.835
104	White	3.934	.404
105	Whitley	1.167	.114
106	Iowa	184.239	431.738
107	Kansas	112.398	310.377
108	Kentucky_E	85.358	127.117
109	Kentucky_W	56.905	84.745
110	Louisiana	29.194	173.477
111	Maine	41.808	64.734
112	Maryland	120.714	208.672
113	Massachusetts	167.321	220.162
114	Michigan_E	393.161	161.677
115	Michigan_W	393.161	161.677
116	Minnesota	321.447	507.406
117	Mississippi	679.929	268.104
118	Missouri	303.151	406.619
119	Montana	20.176	23.602
120	Nebraska	71.070	336.909
121	Nevada	77.249	60.331
122	New Hampshire	39.554	27.188
123	New Jersey	212.010	320.743
124	New Mexico	24.513	43.401
125	New York	466.660	462.627
126	North Carolina	2548.325	737.612
127	North Dakota	21.891	47.200
128	Ohio_N	155.745	155.501
129	Ohio_M	155.745	155.501
130	Ohio_S	155.745	155.501
131	Oklahoma	83.376	152.488
132	Oregon	182.705	257.487
133	Pennsylvania	550.136	735.103
134	Rhode Island	51.028	28.618
135	South Carolina	157.734	186.714
136	South Dakota	37.610	78.834
137	Tennessee	702.510	434.641
138	Texas	880.731	1273.686
139	Utah	198.026	173.311
140	Vermont	71.417	40.757
141	Virginia	687.207	445.566
142	Washington	235.131	454.222
143	West Virginia	23.090	46.196
144	Wisconsin	423.593	609.987
145	Wyoming	4.978	7.335

	Locale	P02_30	A02_30
1	Alabama	12218.190	11913.120
2	Arizona	6010.036	3196.955
3	Arkansas	19909.322	5308.078
4	California	65048.651	74329.105
5	Colorado	7857.742	2722.917
6	Connecticut	3092.331	2058.268
7	Delaware	3912.437	4537.552
8	DC	.000	.000
9	Florida	21191.151	7152.807
10	Georgia	28330.225	6878.782
11	Idaho	7904.259	1117.457
12	Illinois_N	19282.150	17843.810
13	Illinois_S	9641.075	8921.905
14	Adams	138.454	52.125
15	Allen	659.006	320.003
16	Bartholomew	509.666	.000
17	Benton	.000	.000
18	Blackford	16.172	.000
19	Boone	5.433	.000
20	Brown	3.377	.000
21	Carroll	638.326	.000
22	Cass	555.844	.000
23	Clark	115.863	530.814
24	Clay	3.405	.000
25	Clinton	756.462	.000
26	Crawford	.000	.000
27	Daviess	385.200	49.529
28	Dearborn	4.898	63.985
29	Decatur	129.285	.000
30	DeKalb	25.073	.000
31	Delaware	44.928	.000
32	Dubois	297.142	.000
33	Elkhart	257.170	51.766
34	Fayette	.000	.000
35	Floyd	285.429	.000
36	Fountain	19.870	.000
37	Franklin	4.082	319.937
38	Fulton	52.577	.000
39	Gibson	147.241	.000
40	Grant	69.196	.000
41	Greene	120.418	.000
42	Hamilton	74.880	73.550
43	Hancock	5.337	.000
44	Harrison	350.959	379.435
45	Hendricks	318.776	.000
46	Henry	17.001	.000
47	Howard	53.522	.000
48	Huntington	147.317	51.320
49	Jackson	12.429	.000
50	Jasper	81.890	.000
51	Jay	134.660	39.621

	Locale	P02_30	A02_30
52	Jefferson	7.437	.000
53	Jennings	.000	315.293
54	Johnson	3.883	.000
55	Knox	38.140	37.746
56	Kosciusko	333.552	47.570
57	LaGrange	72.684	.000
58	Lake	376.230	9398.969
59	La Porte	184.735	43.018
60	Lawrence	18.702	244.320
61	Madison	257.130	.000
62	Marion	1361.110	548.319
63	Marshall	166.953	306.468
64	Martin	17.454	.000
65	Miami	17.393	.000
66	Monroe	40.003	323.254
67	Montgomery	133.826	.000
68	Morgan	4.611	.000
69	Newton	3.307	.000
70	Noble	281.397	.000
71	Ohio	.000	.000
72	Orange	19.191	.000
73	Owen	3.761	.000
74	Parke	57.117	.000
75	Perry	2.946	.000
76	Pike	.000	.000
77	Porter	115.273	.000
78	Posey	21.796	1779.591
79	Pulaski	24.486	.000
80	Putnam	3.590	.000
81	Randolph	23.329	39.579
82	Ripley	3.705	48.406
83	Rush	7.653	.000
84	St. Joseph	247.124	46.518
85	Scott	133.884	46.641
86	Shelby	58.283	.000
87	Spencer	19.025	.000
88	Starke	.000	.000
89	Steuben	89.453	46.373
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	286.498	58.117
93	Tipton	55.648	.000
94	Union	.000	.000
95	Vanderburgh	1308.604	.000
96	Vermillion	2.334	.000
97	Vigo	85.233	.000
98	Wabash	18.132	39.479
99	Warren	3.571	.000
100	Warrick	.000	.000
101	Washington	22.655	.000
102	Wayne	199.154	.000

	Locale	P02_30	A02_30
103	Wells	202.933	.000
104	White	14.062	.000
105	Whitley	3.950	.000
106	Iowa	15014.151	741.355
107	Kansas	10793.685	12712.393
108	Kentucky_E	4420.627	3613.809
109	Kentucky_W	2947.084	2409.206
110	Louisiana	6032.842	56022.889
111	Maine	2251.181	812.529
112	Maryland	7256.797	6029.005
113	Massachusetts	7656.362	4864.605
114	Michigan_E	5622.496	4592.943
115	Michigan_W	5622.496	4592.943
116	Minnesota	17645.602	10378.365
117	Mississippi	9323.609	8792.287
118	Missouri	14140.620	6797.561
119	Montana	820.796	3945.094
120	Nebraska	11716.353	44.621
121	Nevada	2098.082	539.367
122	New Hampshire	945.502	860.715
123	New Jersey	11154.163	17221.753
124	New Mexico	1509.324	3757.550
125	New York	16088.347	6871.906
126	North Carolina	25651.258	4397.079
127	North Dakota	1641.440	693.384
128	Ohio_N	5407.708	8017.951
129	Ohio_M	5407.708	8017.951
130	Ohio_S	5407.708	8017.951
131	Oklahoma	5302.941	12102.671
132	Oregon	8954.393	4249.546
133	Pennsylvania	25563.987	31532.588
134	Rhode Island	995.208	46.136
135	South Carolina	6493.178	2018.754
136	South Dakota	2741.529	44.485
137	Tennessee	15115.090	7308.697
138	Texas	44293.779	147663.766
139	Utah	6027.088	10030.291
140	Vermont	1417.364	294.296
141	Virginia	15495.048	3912.806
142	Washington	15796.047	12503.998
143	West Virginia	1606.506	1576.021
144	Wisconsin	21212.962	2010.809
145	Wyoming	255.076	3714.352

	Locale	P03_30	A03_30
1	Alabama	7910.464	7712.951
2	Arizona	3891.098	2069.815
3	Arkansas	12889.959	3436.626
4	California	42114.665	48123.139
5	Colorado	5087.364	1762.907
6	Connecticut	2002.078	1332.591
7	Delaware	2533.042	2937.763
8	DC	.000	.000
9	Florida	13719.857	4630.966
10	Georgia	18341.932	4453.553
11	Idaho	5117.480	723.479
12	Illinois_N	12483.906	11552.678
13	Illinois_S	6241.953	5776.339
14	Adams	89.640	33.747
15	Allen	426.663	207.180
16	Bartholomew	329.974	.000
17	Benton	.000	.000
18	Blackford	10.470	.000
19	Boone	3.518	.000
20	Brown	2.186	.000
21	Carroll	413.273	.000
22	Cass	359.872	.000
23	Clark	75.014	343.667
24	Clay	2.205	.000
25	Clinton	489.759	.000
26	Crawford	.000	.000
27	Daviess	249.391	32.067
28	Dearborn	3.171	41.426
29	Decatur	83.703	.000
30	DeKalb	16.233	.000
31	Delaware	29.088	.000
32	Dubois	192.380	.000
33	Elkhart	166.500	33.515
34	Fayette	.000	.000
35	Floyd	184.796	.000
36	Fountain	12.865	.000
37	Franklin	2.643	207.138
38	Fulton	34.040	.000
39	Gibson	95.328	.000
40	Grant	44.800	.000
41	Greene	77.963	.000
42	Hamilton	48.480	47.618
43	Hancock	3.456	.000
44	Harrison	227.222	245.659
45	Hendricks	206.386	.000
46	Henry	11.007	.000
47	Howard	34.652	.000
48	Huntington	95.378	33.226
49	Jackson	8.047	.000
50	Jasper	53.018	.000
51	Jay	87.183	25.652

	Locale	P03_30	A03_30
52	Jefferson	4.815	.000
53	Jennings	.000	204.131
54	Johnson	2.514	.000
55	Knox	24.693	24.438
56	Kosciusko	215.953	30.799
57	LaGrange	47.058	.000
58	Lake	243.584	6085.206
59	La Porte	119.604	27.852
60	Lawrence	12.108	158.181
61	Madison	166.475	.000
62	Marion	881.228	355.000
63	Marshall	108.091	198.417
64	Martin	11.301	.000
65	Miami	11.261	.000
66	Monroe	25.899	209.285
67	Montgomery	86.644	.000
68	Morgan	2.985	.000
69	Newton	2.141	.000
70	Noble	182.186	.000
71	Ohio	.000	.000
72	Orange	12.425	.000
73	Owen	2.435	.000
74	Parke	36.980	.000
75	Perry	1.907	.000
76	Pike	.000	.000
77	Porter	74.632	.000
78	Posey	14.111	1152.167
79	Pulaski	15.853	.000
80	Putnam	2.324	.000
81	Randolph	15.104	25.625
82	Ripley	2.399	31.340
83	Rush	4.955	.000
84	St. Joseph	159.996	30.117
85	Scott	86.681	30.197
86	Shelby	37.734	.000
87	Spencer	12.317	.000
88	Starke	.000	.000
89	Steuben	57.915	30.023
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	185.489	37.627
93	Tipton	36.029	.000
94	Union	.000	.000
95	Vanderburgh	847.234	.000
96	Vermillion	1.511	.000
97	Vigo	55.183	.000
98	Wabash	11.739	25.560
99	Warren	2.312	.000
100	Warrick	.000	.000
101	Washington	14.668	.000
102	Wayne	128.939	.000

	Locale	P03_30	A03_30
103	Wells	131.385	.000
104	White	9.104	.000
105	Whitley	2.557	.000
106	Iowa	9720.662	479.978
107	Kansas	6988.191	8230.427
108	Kentucky_E	2862.061	2339.701
109	Kentucky_W	1908.041	1559.800
110	Louisiana	3905.863	36271.085
111	Maine	1457.490	526.058
112	Maryland	4698.292	3903.379
113	Massachusetts	4956.984	3149.508
114	Michigan_E	3640.191	2973.624
115	Michigan_W	3640.191	2973.624
116	Minnesota	11424.351	6719.299
117	Mississippi	6036.416	5692.420
118	Missouri	9155.109	4400.968
119	Montana	531.411	2554.185
120	Nebraska	7585.557	28.889
121	Nevada	1358.368	349.204
122	New Hampshire	612.150	557.256
123	New Jersey	7221.577	11149.937
124	New Mexico	977.187	2432.763
125	New York	10416.132	4449.101
126	North Carolina	16607.479	2846.815
127	North Dakota	1062.723	448.920
128	Ohio_N	3501.131	5191.089
129	Ohio_M	3501.131	5191.089
130	Ohio_S	3501.131	5191.089
131	Oklahoma	3433.300	7835.672
132	Oregon	5797.372	2751.298
133	Pennsylvania	16550.977	20415.248
134	Rhode Island	644.331	29.870
135	South Carolina	4203.900	1307.009
136	South Dakota	1774.957	28.801
137	Tennessee	9786.013	4731.894
138	Texas	28677.269	95602.443
139	Utah	3902.138	6493.944
140	Vermont	917.649	190.537
141	Virginia	10032.010	2533.281
142	Washington	10226.888	8095.505
143	West Virginia	1040.105	1020.368
144	Wisconsin	13733.978	1301.864
145	Wyoming	165.145	2404.795

	Locale	P04_30	A04_30
1	Alabama	8672.212	8672.212
2	Arizona	4265.796	4265.796
3	Arkansas	14131.214	14131.214
4	California	46170.151	46170.151
5	Colorado	5577.259	5577.259
6	Connecticut	2194.871	2194.871
7	Delaware	2776.965	2776.965
8	DC	.000	.000
9	Florida	15041.029	15041.029
10	Georgia	20108.192	20108.192
11	Idaho	5610.275	5610.275
12	Illinois_N	13686.060	13686.060
13	Illinois_S	6843.030	6843.030
14	Adams	98.272	98.272
15	Allen	467.749	467.749
16	Bartholomew	361.750	361.750
17	Benton	.000	.000
18	Blackford	11.479	11.479
19	Boone	3.856	3.856
20	Brown	2.397	2.397
21	Carroll	453.070	453.070
22	Cass	394.526	394.526
23	Clark	82.237	82.237
24	Clay	2.417	2.417
25	Clinton	536.921	536.921
26	Crawford	.000	.000
27	Daviess	273.407	273.407
28	Dearborn	3.476	3.476
29	Decatur	91.763	91.763
30	DeKalb	17.797	17.797
31	Delaware	31.889	31.889
32	Dubois	210.905	210.905
33	Elkhart	182.533	182.533
34	Fayette	.000	.000
35	Floyd	202.591	202.591
36	Fountain	14.104	14.104
37	Franklin	2.897	2.897
38	Fulton	37.318	37.318
39	Gibson	104.508	104.508
40	Grant	49.114	49.114
41	Greene	85.470	85.470
42	Hamilton	53.148	53.148
43	Hancock	3.788	3.788
44	Harrison	249.103	249.103
45	Hendricks	226.261	226.261
46	Henry	12.067	12.067
47	Howard	37.989	37.989
48	Huntington	104.562	104.562
49	Jackson	8.822	8.822
50	Jasper	58.123	58.123
51	Jay	95.579	95.579

	Locale	P04_30	A04_30
52	Jefferson	5.278	5.278
53	Jennings	.000	.000
54	Johnson	2.756	2.756
55	Knox	27.071	27.071
56	Kosciusko	236.748	236.748
57	LaGrange	51.590	51.590
58	Lake	267.040	267.040
59	La Porte	131.121	131.121
60	Lawrence	13.274	13.274
61	Madison	182.505	182.505
62	Marion	966.087	966.087
63	Marshall	118.499	118.499
64	Martin	12.389	12.389
65	Miami	12.345	12.345
66	Monroe	28.393	28.393
67	Montgomery	94.987	94.987
68	Morgan	3.273	3.273
69	Newton	2.347	2.347
70	Noble	199.730	199.730
71	Ohio	.000	.000
72	Orange	13.621	13.621
73	Owen	2.669	2.669
74	Parke	40.541	40.541
75	Perry	2.091	2.091
76	Pike	.000	.000
77	Porter	81.818	81.818
78	Posey	15.470	15.470
79	Pulaski	17.380	17.380
80	Putnam	2.548	2.548
81	Randolph	16.558	16.558
82	Ripley	2.630	2.630
83	Rush	5.432	5.432
84	St. Joseph	175.403	175.403
85	Scott	95.028	95.028
86	Shelby	41.368	41.368
87	Spencer	13.503	13.503
88	Starke	.000	.000
89	Steuben	63.492	63.492
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	203.351	203.351
93	Tipton	39.498	39.498
94	Union	.000	.000
95	Vanderburgh	928.819	928.819
96	Vermillion	1.656	1.656
97	Vigo	60.497	60.497
98	Wabash	12.870	12.870
99	Warren	2.535	2.535
100	Warrick	.000	.000
101	Washington	16.080	16.080
102	Wayne	141.355	141.355

	Locale	P04_30	A04_30
103	Wells	144.037	144.037
104	White	9.981	9.981
105	Whitley	2.803	2.803
106	Iowa	10656.726	10656.726
107	Kansas	7661.128	7661.128
108	Kentucky_E	3137.667	3137.667
109	Kentucky_W	2091.778	2091.778
110	Louisiana	4281.983	4281.983
111	Maine	1597.840	1597.840
112	Maryland	5150.720	5150.720
113	Massachusetts	5434.323	5434.323
114	Michigan_E	3990.728	3990.728
115	Michigan_W	3990.728	3990.728
116	Minnesota	12524.473	12524.473
117	Mississippi	6617.700	6617.700
118	Missouri	10036.712	10036.712
119	Montana	582.584	582.584
120	Nebraska	8316.018	8316.018
121	Nevada	1489.174	1489.174
122	New Hampshire	671.097	671.097
123	New Jersey	7916.988	7916.988
124	New Mexico	1071.286	1071.286
125	New York	11419.167	11419.167
126	North Carolina	18206.718	18206.718
127	North Dakota	1165.059	1165.059
128	Ohio_N	3838.276	3838.276
129	Ohio_M	3838.276	3838.276
130	Ohio_S	3838.276	3838.276
131	Oklahoma	3763.915	3763.915
132	Oregon	6355.638	6355.638
133	Pennsylvania	18144.775	18144.775
134	Rhode Island	706.378	706.378
135	South Carolina	4608.720	4608.720
136	South Dakota	1945.879	1945.879
137	Tennessee	10728.370	10728.370
138	Texas	31438.784	31438.784
139	Utah	4277.899	4277.899
140	Vermont	1006.015	1006.015
141	Virginia	10998.056	10998.056
142	Washington	11211.699	11211.699
143	West Virginia	1140.264	1140.264
144	Wisconsin	15056.510	15056.510
145	Wyoming	181.048	181.048

	Locale	P05_30	A05_30
1	Alabama	3651.869	3031.713
2	Arizona	1796.327	3357.723
3	Arkansas	5950.655	3791.711
4	California	19442.254	20827.038
5	Colorado	2348.584	2515.688
6	Connecticut	924.260	1384.257
7	Delaware	1169.380	833.276
8	DC	.000	.000
9	Florida	6333.778	9878.117
10	Georgia	8467.561	7077.537
11	Idaho	2362.487	1652.706
12	Illinois_N	5763.201	5081.613
13	Illinois_S	2881.601	2540.807
14	Adams	41.382	32.740
15	Allen	196.969	209.158
16	Bartholomew	152.333	101.757
17	Benton	.000	1.925
18	Blackford	4.834	5.486
19	Boone	1.624	19.883
20	Brown	1.009	4.586
21	Carroll	190.788	101.824
22	Cass	166.135	96.201
23	Clark	34.630	47.542
24	Clay	1.018	8.483
25	Clinton	226.097	124.004
26	Crawford	.000	3.308
27	Daviess	115.132	66.308
28	Dearborn	1.464	18.397
29	Decatur	38.642	26.998
30	DeKalb	7.494	17.623
31	Delaware	13.428	40.991
32	Dubois	88.812	57.614
33	Elkhart	76.865	112.799
34	Fayette	.000	8.103
35	Floyd	85.311	66.157
36	Fountain	5.939	7.803
37	Franklin	1.220	7.206
38	Fulton	15.714	13.336
39	Gibson	44.008	30.851
40	Grant	20.682	27.771
41	Greene	35.991	26.817
42	Hamilton	22.381	112.757
43	Hancock	1.595	24.791
44	Harrison	104.897	66.058
45	Hendricks	95.278	103.086
46	Henry	5.081	14.434
47	Howard	15.997	41.877
48	Huntington	44.031	35.287
49	Jackson	3.715	14.356
50	Jasper	24.476	20.894
51	Jay	40.248	25.539

	Locale	P05_30	A05_30
52	Jefferson	2.223	11.400
53	Jennings	.000	9.005
54	Johnson	1.161	50.160
55	Knox	11.400	15.024
56	Kosciusko	99.695	72.319
57	LaGrange	21.724	23.932
58	Lake	112.451	179.870
59	La Porte	55.215	55.901
60	Lawrence	5.590	15.192
61	Madison	76.853	79.134
62	Marion	406.819	448.805
63	Marshall	49.900	40.082
64	Martin	5.217	5.007
65	Miami	5.199	10.846
66	Monroe	11.957	44.818
67	Montgomery	39.999	31.380
68	Morgan	1.378	24.334
69	Newton	.988	4.165
70	Noble	84.106	57.946
71	Ohio	.000	1.474
72	Orange	5.736	8.085
73	Owen	1.124	6.858
74	Parke	17.072	12.767
75	Perry	.881	4.863
76	Pike	.000	3.333
77	Porter	34.454	57.343
78	Posey	6.514	10.553
79	Pulaski	7.319	7.164
80	Putnam	1.073	11.334
81	Randolph	6.973	10.298
82	Ripley	1.107	8.017
83	Rush	2.288	5.166
84	St. Joseph	73.862	115.857
85	Scott	40.016	26.841
86	Shelby	17.420	20.610
87	Spencer	5.686	7.977
88	Starke	.000	5.969
89	Steuben	26.736	24.502
90	Sullivan	.000	5.821
91	Switzerland	.000	2.769
92	Tippecanoe	85.631	98.079
93	Tipton	16.633	12.576
94	Union	.000	1.796
95	Vanderburgh	391.126	243.161
96	Vermillion	.697	4.150
97	Vigo	25.475	38.539
98	Wabash	5.419	11.387
99	Warren	1.067	2.575
100	Warrick	.000	17.449
101	Washington	6.771	11.252
102	Wayne	59.525	46.382

	Locale	P05_30	A05_30
103	Wells	60.654	38.813
104	White	4.203	9.689
105	Whitley	1.181	10.889
106	Iowa	4487.548	2994.076
107	Kansas	3226.102	2371.358
108	Kentucky_E	1321.272	1338.619
109	Kentucky_W	880.848	892.413
110	Louisiana	1803.143	2084.692
111	Maine	672.851	690.740
112	Maryland	2168.969	2768.806
113	Massachusetts	2288.394	2839.052
114	Michigan_E	1680.496	2669.706
115	Michigan_W	1680.496	1779.804
116	Minnesota	5274.057	4166.777
117	Mississippi	2786.714	2165.390
118	Missouri	4226.460	3724.271
119	Montana	245.326	375.229
120	Nebraska	3501.876	2214.679
121	Nevada	627.091	1238.591
122	New Hampshire	282.599	530.716
123	New Jersey	3333.844	4023.007
124	New Mexico	451.119	728.077
125	New York	4808.612	7118.219
126	North Carolina	7666.850	6741.980
127	North Dakota	490.607	399.389
128	Ohio_N	1616.299	1785.872
129	Ohio_M	1616.299	1785.872
130	Ohio_S	1616.299	1785.872
131	Oklahoma	1584.985	1747.600
132	Oregon	2676.360	2504.750
133	Pennsylvania	7640.766	6994.392
134	Rhode Island	297.456	425.897
135	South Carolina	1940.732	2206.944
136	South Dakota	819.410	608.312
137	Tennessee	4517.717	4068.877
138	Texas	13238.874	14448.260
139	Utah	1801.424	1731.888
140	Vermont	423.633	386.132
141	Virginia	4631.282	4682.840
142	Washington	4721.247	4499.756
143	West Virginia	480.165	665.800
144	Wisconsin	6340.297	4710.368
145	Wyoming	76.239	164.832

	Locale	P06_30	A06_30
1	Alabama	3736.085	3484.185
2	Arizona	2358.198	4143.476
3	Arkansas	5651.388	3744.400
4	California	21766.719	24359.948
5	Colorado	2646.875	2878.499
6	Connecticut	1922.566	2066.583
7	Delaware	992.387	1110.837
8	DC	.000	.000
9	Florida	7213.790	11901.848
10	Georgia	8459.172	8116.216
11	Idaho	2046.472	1710.929
12	Illinois_N	8207.144	6388.762
13	Illinois_S	4103.572	3194.381
14	Adams	59.276	37.142
15	Allen	442.174	222.745
16	Bartholomew	312.206	98.124
17	Benton	2.528	2.303
18	Blackford	6.042	5.646
19	Boone	35.142	23.155
20	Brown	.789	5.682
21	Carroll	152.124	86.712
22	Cass	138.474	82.240
23	Clark	73.163	80.880
24	Clay	5.327	10.815
25	Clinton	187.501	113.381
26	Crawford	.000	3.969
27	Daviess	99.245	60.646
28	Dearborn	9.447	22.348
29	Decatur	52.122	24.020
30	DeKalb	43.268	29.032
31	Delaware	62.863	47.219
32	Dubois	75.543	53.549
33	Elkhart	140.943	177.117
34	Fayette	27.769	7.089
35	Floyd	100.906	67.496
36	Fountain	4.640	8.027
37	Franklin	4.384	8.049
38	Fulton	29.101	13.413
39	Gibson	43.900	28.684
40	Grant	39.499	30.170
41	Greene	28.119	25.451
42	Hamilton	39.414	133.584
43	Hancock	18.671	27.583
44	Harrison	86.023	61.547
45	Hendricks	97.109	106.399
46	Henry	18.857	15.176
47	Howard	29.005	33.017
48	Huntington	57.848	34.753
49	Jackson	36.037	21.194
50	Jasper	19.632	20.374
51	Jay	40.071	22.899

	Locale	P06_30	A06_30
52	Jefferson	40.444	14.256
53	Jennings	16.457	10.522
54	Johnson	54.142	61.967
55	Knox	12.428	15.905
56	Kosciusko	122.632	80.084
57	LaGrange	48.325	23.894
58	Lake	150.325	248.546
59	La Porte	131.444	68.328
60	Lawrence	21.530	15.872
61	Madison	79.305	89.226
62	Marion	735.414	686.793
63	Marshall	47.422	42.646
64	Martin	4.483	5.040
65	Miami	12.307	13.939
66	Monroe	110.458	58.848
67	Montgomery	40.050	35.970
68	Morgan	19.035	47.939
69	Newton	4.618	5.042
70	Noble	89.891	60.172
71	Ohio	.000	1.769
72	Orange	4.929	8.637
73	Owen	1.405	8.021
74	Parke	16.081	12.150
75	Perry	7.911	5.673
76	Pike	.000	4.000
77	Porter	52.097	80.802
78	Posey	8.143	82.010
79	Pulaski	29.584	7.229
80	Putnam	9.639	12.749
81	Randolph	28.455	10.513
82	Ripley	.865	11.874
83	Rush	23.192	5.731
84	St. Joseph	135.186	155.736
85	Scott	34.265	31.662
86	Shelby	31.948	27.934
87	Spencer	12.217	8.734
88	Starke	16.315	9.009
89	Steuben	46.651	22.158
90	Sullivan	.000	7.229
91	Switzerland	.000	3.323
92	Tippecanoe	234.445	176.550
93	Tipton	20.791	12.068
94	Union	.482	3.798
95	Vanderburgh	358.596	316.286
96	Vermillion	.545	61.505
97	Vigo	41.138	80.494
98	Wabash	24.600	24.925
99	Warren	9.590	2.840
100	Warrick	3.356	24.315
101	Washington	44.968	12.236
102	Wayne	60.951	48.068

	Locale	P06_30	A06_30
103	Wells	63.880	34.950
104	White	17.309	9.428
105	Whitley	7.950	12.097
106	Iowa	5259.482	2997.476
107	Kansas	3585.791	2461.539
108	Kentucky_E	1723.373	1682.302
109	Kentucky_W	1148.915	1121.534
110	Louisiana	1841.814	3211.543
111	Maine	667.947	757.931
112	Maryland	2316.705	3579.939
113	Massachusetts	3432.833	3836.631
114	Michigan_E	3901.838	2895.638
115	Michigan_W	3901.838	2895.638
116	Minnesota	6503.024	4413.517
117	Mississippi	2983.692	2341.769
118	Missouri	5077.910	4534.731
119	Montana	282.854	425.762
120	Nebraska	3312.631	2107.651
121	Nevada	642.645	1465.942
122	New Hampshire	803.725	668.768
123	New Jersey	3961.812	7035.705
124	New Mexico	418.764	844.240
125	New York	6968.170	9907.522
126	North Carolina	8935.926	9006.624
127	North Dakota	609.154	387.988
128	Ohio_N	2835.888	2378.836
129	Ohio_M	2935.888	2378.836
130	Ohio_S	2935.888	2378.836
131	Oklahoma	2495.846	1939.224
132	Oregon	2938.731	2715.016
133	Pennsylvania	9357.445	8186.471
134	Rhode Island	409.683	556.773
135	South Carolina	3020.665	3996.493
136	South Dakota	883.787	603.188
137	Tennessee	6004.391	5578.131
138	Texas	16623.260	19241.223
139	Utah	1889.239	2040.500
140	Vermont	519.825	398.050
141	Virginia	4902.770	5691.889
142	Washington	4625.073	4691.084
143	West Virginia	542.840	1181.345
144	Wisconsin	9389.802	4958.904
145	Wyoming	95.302	230.518

	Locale	P07_30	A07_30
1	Alabama	12738.885	14642.756
2	Arizona	16565.231	17707.934
3	Arkansas	16178.502	14108.017
4	California	93563.840	95415.601
5	Colorado	10517.413	11316.316
6	Connecticut	9152.310	7458.971
7	Delaware	3183.384	3143.878
8	DC	.000	.000
9	Florida	46156.761	50856.239
10	Georgia	32167.171	33389.762
11	Idaho	5785.432	5946.759
12	Illinois_N	26836.504	22974.506
13	Illinois_S	13418.252	11487.253
14	Adams	487.260	107.343
15	Allen	780.950	1016.107
16	Bartholomew	319.510	445.502
17	Benton	9.487	39.166
18	Blackford	21.569	84.027
19	Boone	161.851	117.437
20	Brown	23.890	25.647
21	Carroll	290.501	250.105
22	Cass	280.695	251.561
23	Clark	199.006	232.755
24	Clay	34.853	41.894
25	Clinton	359.042	325.789
26	Crawford	16.350	19.912
27	Daviess	199.173	179.997
28	Dearborn	89.306	107.969
29	Decatur	87.901	83.052
30	DeKalb	363.143	124.164
31	Delaware	365.916	293.039
32	Dubois	179.323	211.935
33	Elkhart	637.142	583.866
34	Fayette	29.200	35.562
35	Floyd	245.399	269.717
36	Fountain	70.341	32.671
37	Franklin	32.731	39.199
38	Fulton	90.063	60.848
39	Gibson	310.413	101.247
40	Grant	174.747	174.488
41	Greene	131.883	92.800
42	Hamilton	609.960	629.650
43	Hancock	113.063	187.519
44	Harrison	265.750	193.894
45	Hendricks	401.813	437.578
46	Henry	62.735	80.129
47	Howard	171.947	150.131
48	Huntington	220.864	154.619
49	Jackson	72.987	155.123
50	Jasper	75.370	78.490
51	Jay	80.258	85.418

	Locale	P07_30	A07_30
52	Jefferson	146.066	56.943
53	Jennings	41.502	63.208
54	Johnson	386.299	342.143
55	Knox	61.532	77.839
56	Kosciusko	374.049	239.733
57	LaGrange	88.962	96.539
58	Lake	784.217	932.745
59	La Porte	252.960	312.721
60	Lawrence	65.623	74.206
61	Madison	284.317	333.031
62	Marion	1807.356	2381.496
63	Marshall	192.331	232.260
64	Martin	18.938	20.229
65	Miami	200.950	112.240
66	Monroe	1297.954	284.069
67	Montgomery	294.360	139.680
68	Morgan	117.941	142.890
69	Newton	90.965	32.903
70	Noble	448.084	209.679
71	Ohio	7.285	8.872
72	Orange	202.720	37.772
73	Owen	32.646	39.148
74	Parke	84.356	44.409
75	Perry	100.953	27.604
76	Pike	16.476	20.066
77	Porter	267.987	279.676
78	Posey	44.903	51.146
79	Pulaski	121.054	31.035
80	Putnam	52.142	62.920
81	Randolph	40.867	45.982
82	Ripley	38.359	80.137
83	Rush	22.808	35.801
84	St. Joseph	714.711	644.369
85	Scott	102.976	85.269
86	Shelby	93.834	89.399
87	Spencer	32.538	36.537
88	Starke	28.592	44.597
89	Steuben	200.068	96.424
90	Sullivan	28.155	34.289
91	Switzerland	13.688	19.160
92	Tippecanoe	382.170	409.982
93	Tipton	42.442	52.660
94	Union	11.304	10.811
95	Vanderburgh	1753.579	842.792
96	Vermillion	19.734	50.437
97	Vigo	175.365	276.329
98	Wabash	61.753	116.151
99	Warren	11.327	13.215
100	Warrick	88.370	106.290
101	Washington	64.008	54.819
102	Wayne	308.631	196.863

	Locale	P07_30	A07_30
103	Wells	332.369	129.026
104	White	214.423	53.764
105	Whitley	225.013	93.608
106	Iowa	12944.877	10375.323
107	Kansas	9220.688	8545.967
108	Kentucky_E	7884.868	6619.700
109	Kentucky_W	5256.579	4413.134
110	Louisiana	8802.618	11055.152
111	Maine	2909.272	4999.268
112	Maryland	11935.750	14025.188
113	Massachusetts	15779.175	16263.510
114	Michigan_E	10528.747	11374.106
115	Michigan_W	10528.747	11374.106
116	Minnesota	17869.823	18343.386
117	Mississippi	11516.930	9214.538
118	Missouri	18469.444	16592.158
119	Montana	1594.342	1935.575
120	Nebraska	8244.509	6943.465
121	Nevada	5744.911	6467.200
122	New Hampshire	4130.938	3464.569
123	New Jersey	18873.744	21243.110
124	New Mexico	3357.476	3622.842
125	New York	34621.667	37988.305
126	North Carolina	36519.953	31224.082
127	North Dakota	1431.236	1470.359
128	Ohio_N	10785.618	9166.138
129	Ohio_M	10785.618	9166.138
130	Ohio_S	10785.618	9166.138
131	Oklahoma	7621.091	8149.811
132	Oregon	9863.857	11793.116
133	Pennsylvania	32633.388	33035.580
134	Rhode Island	2786.566	2357.196
135	South Carolina	13187.143	12448.246
136	South Dakota	2175.892	2212.544
137	Tennessee	22246.910	19365.316
138	Texas	64264.985	67018.457
139	Utah	7021.481	7624.426
140	Vermont	1813.991	1852.669
141	Virginia	21529.548	22728.853
142	Washington	17753.347	21154.278
143	West Virginia	3103.811	3181.996
144	Wisconsin	24779.439	24179.807
145	Wyoming	730.937	847.624

	Locale	P08_30	A08_30
1	Alabama	3524.051	4857.979
2	Arizona	9170.966	7093.221
3	Arkansas	2027.860	2190.764
4	California	44506.131	44605.212
5	Colorado	4954.523	4892.264
6	Connecticut	2971.843	2329.862
7	Delaware	658.185	575.146
8	DC	.000	.000
9	Florida	19711.945	18654.979
10	Georgia	7530.899	9520.322
11	Idaho	1991.132	1404.015
12	Illinois_N	7026.445	5925.415
13	Illinois_S	3513.223	2962.708
14	Adams	55.904	46.361
15	Allen	404.461	293.958
16	Bartholomew	81.448	59.212
17	Benton	4.586	3.870
18	Blackford	7.182	6.061
19	Boone	68.089	49.132
20	Brown	10.083	11.212
21	Carroll	12.354	10.425
22	Cass	36.959	30.395
23	Clark	75.472	62.740
24	Clay	16.531	13.808
25	Clinton	50.961	41.989
26	Crawford	7.904	6.670
27	Daviess	18.993	25.343
28	Dearborn	42.714	204.901
29	Decatur	15.361	12.963
30	DeKalb	43.614	31.754
31	Delaware	76.375	66.013
32	Dubois	57.069	37.000
33	Elkhart	229.348	157.302
34	Fayette	14.115	11.912
35	Floyd	79.559	60.442
36	Fountain	12.397	12.420
37	Franklin	15.003	12.661
38	Fulton	13.119	30.401
39	Gibson	29.502	21.802
40	Grant	.000	.000
41	Greene	22.507	18.188
42	Hamilton	252.064	208.702
43	Hancock	54.158	58.593
44	Harrison	29.172	24.618
45	Hendricks	143.278	116.821
46	Henry	27.715	22.701
47	Howard	54.725	55.327
48	Huntington	91.442	52.073
49	Jackson	25.728	21.711
50	Jasper	26.846	19.991
51	Jay	11.778	18.603

	Locale	P08_30	A08_30
52	Jefferson	21.589	19.989
53	Jennings	20.062	16.930
54	Johnson	149.325	117.345
55	Knox	24.607	19.786
56	Kosciusko	53.673	52.412
57	LaGrange	31.053	25.181
58	Lake	296.700	310.289
59	La Porte	68.121	92.735
60	Lawrence	28.917	32.524
61	Madison	85.048	71.629
62	Marion	624.375	722.105
63	Marshall	32.176	60.114
64	Martin	5.653	4.770
65	Miami	19.855	17.611
66	Monroe	137.202	111.229
67	Montgomery	24.213	20.934
68	Morgan	142.773	86.732
69	Newton	14.695	9.980
70	Noble	33.654	27.459
71	Ohio	3.522	2.972
72	Orange	12.379	11.970
73	Owen	15.026	12.681
74	Parke	9.849	9.866
75	Perry	10.872	9.052
76	Pike	7.965	6.721
77	Porter	99.582	82.877
78	Posey	17.333	14.627
79	Pulaski	8.245	6.958
80	Putnam	31.234	23.731
81	Randolph	17.028	14.034
82	Ripley	20.188	20.992
83	Rush	9.806	8.566
84	St. Joseph	215.482	170.365
85	Scott	15.615	23.376
86	Shelby	26.855	22.663
87	Spencer	11.912	10.052
88	Starke	13.822	11.664
89	Steuben	23.945	19.316
90	Sullivan	13.610	14.473
91	Switzerland	6.617	5.584
92	Tippecanoe	175.131	126.234
93	Tipton	9.351	7.891
94	Union	4.291	3.621
95	Vanderburgh	108.035	125.285
96	Vermillion	9.071	7.655
97	Vigo	125.258	81.027
98	Wabash	37.176	24.697
99	Warren	4.759	4.016
100	Warrick	41.357	34.901
101	Washington	18.674	20.737
102	Wayne	65.214	45.797

	Locale	P08_30	A08_30
103	Wells	19.054	15.914
104	White	21.536	15.724
105	Whitley	29.564	22.090
106	Iowa	2258.308	2021.910
107	Kansas	1915.305	1771.902
108	Kentucky_E	1819.874	2801.856
109	Kentucky_W	1213.249	1867.904
110	Louisiana	2838.709	3060.829
111	Maine	1049.999	1005.456
112	Maryland	5077.065	4449.165
113	Massachusetts	7768.471	5984.020
114	Michigan_E	3542.843	3146.515
115	Michigan_W	3542.843	3146.515
116	Minnesota	6208.854	4620.041
117	Mississippi	1933.222	2557.812
118	Missouri	4227.923	4679.486
119	Montana	617.595	586.644
120	Nebraska	1268.744	1112.503
121	Nevada	2453.236	2251.664
122	New Hampshire	2065.733	1530.248
123	New Jersey	6971.957	7025.336
124	New Mexico	1635.225	1324.045
125	New York	14101.686	15385.557
126	North Carolina	9460.002	15014.869
127	North Dakota	404.575	353.221
128	Ohio_N	2649.120	2462.387
129	Ohio_M	2649.120	2462.387
130	Ohio_S	2649.120	2462.387
131	Oklahoma	2723.030	2694.547
132	Oregon	4663.333	3873.069
133	Pennsylvania	9475.265	10155.549
134	Rhode Island	909.402	768.531
135	South Carolina	3633.497	3873.159
136	South Dakota	939.313	659.880
137	Tennessee	4749.243	6384.817
138	Texas	25996.535	24547.922
139	Utah	2786.028	2286.909
140	Vermont	800.555	645.866
141	Virginia	6991.177	9424.330
142	Washington	7230.480	6252.251
143	West Virginia	1034.317	1047.541
144	Wisconsin	4418.480	4070.041
145	Wyoming	317.368	292.653

	Locale	P09_30	A09_30
1	Alabama	503.724	513.399
2	Arizona	156.912	149.862
3	Arkansas	154.933	149.413
4	California	1043.435	1012.112
5	Colorado	64.793	61.901
6	Connecticut	76.476	77.274
7	Delaware	21.748	22.026
8	DC	.000	.000
9	Florida	353.361	341.037
10	Georgia	1314.651	1358.286
11	Idaho	23.389	22.149
12	Illinois_N	133.068	126.689
13	Illinois_S	66.534	63.345
14	Adams	2.738	2.582
15	Allen	10.445	9.868
16	Bartholomew	7.631	7.196
17	Benton	.467	.441
18	Blackford	.070	.066
19	Boone	.844	.796
20	Brown	.000	.000
21	Carroll	3.542	3.340
22	Cass	.082	.078
23	Clark	11.657	10.991
24	Clay	.088	.083
25	Clinton	.563	.530
26	Crawford	.000	.000
27	Daviess	.589	.555
28	Dearborn	.000	.000
29	Decatur	.090	.085
30	DeKalb	.108	.102
31	Delaware	1.312	1.237
32	Dubois	63.538	59.911
33	Elkhart	39.728	37.479
34	Fayette	.451	.425
35	Floyd	4.516	4.258
36	Fountain	.000	.000
37	Franklin	.000	.000
38	Fulton	.000	.000
39	Gibson	.000	.000
40	Grant	1.183	1.116
41	Greene	.083	.078
42	Hamilton	4.067	3.863
43	Hancock	.829	.782
44	Harrison	8.135	7.670
45	Hendricks	.179	.169
46	Henry	1.284	1.211
47	Howard	3.269	3.082
48	Huntington	.000	.000
49	Jackson	.536	.506
50	Jasper	.094	.089
51	Jay	.471	.444

	Locale	P09_30	A09_30
52	Jefferson	.096	.091
53	Jennings	.000	.000
54	Johnson	1.250	1.178
55	Knox	.075	.071
56	Kosciusko	3.055	2.898
57	LaGrange	3.183	3.001
58	Lake	2.183	2.058
59	La Porte	2.413	2.372
60	Lawrence	.081	.076
61	Madison	3.808	3.608
62	Marion	12.549	11.935
63	Marshall	.607	.573
64	Martin	.000	.000
65	Miami	2.815	2.654
66	Monroe	.747	.705
67	Montgomery	.000	.000
68	Morgan	.119	.113
69	Newton	.514	.484
70	Noble	.583	.550
71	Ohio	.000	.000
72	Orange	14.493	13.666
73	Owen	.000	.000
74	Parke	.085	.080
75	Perry	2.235	2.107
76	Pike	.000	.000
77	Porter	1.474	1.495
78	Posey	.000	.000
79	Pulaski	.092	.087
80	Putnam	.000	.000
81	Randolph	.926	.962
82	Ripley	1.679	1.583
83	Rush	.000	.000
84	St. Joseph	1.715	1.634
85	Scott	.555	.523
86	Shelby	2.863	2.700
87	Spencer	6.158	5.806
88	Starke	.080	.076
89	Steuben	.092	.087
90	Sullivan	.000	.000
91	Switzerland	.123	.116
92	Tippecanoe	8.639	8.146
93	Tipton	.000	.000
94	Union	.000	.000
95	Vanderburgh	4.053	3.840
96	Vermillion	.000	.000
97	Vigo	.534	.503
98	Wabash	.078	.074
99	Warren	.000	.000
100	Warrick	.103	.097
101	Washington	17.110	16.133
102	Wayne	5.223	4.924

	Locale	P09_30	A09_30
103	Wells	.287	.290
104	White	4.248	4.292
105	Whitley	.450	.424
106	Iowa	72.942	68.975
107	Kansas	45.393	43.015
108	Kentucky_E	49.253	48.152
109	Kentucky_W	32.835	32.101
110	Louisiana	13.205	12.655
111	Maine	91.196	93.855
112	Maryland	79.771	78.697
113	Massachusetts	270.184	276.304
114	Michigan_E	156.835	148.426
115	Michigan_W	156.835	148.426
116	Minnesota	138.357	131.965
117	Mississippi	305.936	293.048
118	Missouri	128.178	122.040
119	Montana	8.821	8.426
120	Nebraska	33.378	32.098
121	Nevada	30.112	28.426
122	New Hampshire	67.817	69.452
123	New Jersey	242.605	245.605
124	New Mexico	10.525	10.036
125	New York	375.431	374.474
126	North Carolina	3494.067	3557.675
127	North Dakota	9.291	8.849
128	Ohio_N	78.676	76.134
129	Ohio_M	78.676	76.134
130	Ohio_S	78.676	76.134
131	Oklahoma	39.147	37.645
132	Oregon	75.853	72.087
133	Pennsylvania	425.913	423.989
134	Rhode Island	117.354	120.886
135	South Carolina	1225.446	1277.493
136	South Dakota	26.408	26.147
137	Tennessee	498.850	494.247
138	Texas	482.018	469.412
139	Utah	79.290	75.068
140	Vermont	29.730	28.261
141	Virginia	691.445	696.642
142	Washington	107.105	102.710
143	West Virginia	14.243	13.989
144	Wisconsin	205.204	197.871
145	Wyoming	2.078	1.976

	Locale	P10_30	A10_30
1	Alabama	231.861	263.245
2	Arizona	411.588	241.230
3	Arkansas	157.613	151.108
4	California	2516.502	1523.447
5	Colorado	278.501	148.914
6	Connecticut	209.577	297.673
7	Delaware	64.586	160.787
8	DC	.000	.000
9	Florida	1342.954	616.317
10	Georgia	635.464	602.992
11	Idaho	110.875	81.173
12	Illinois_N	581.860	670.956
13	Illinois_S	290.930	335.478
14	Adams	2.876	3.729
15	Allen	33.250	7.911
16	Bartholomew	3.658	3.672
17	Benton	2.035	.000
18	Blackford	1.502	.000
19	Boone	3.788	.000
20	Brown	1.283	.180
21	Carroll	2.392	.000
22	Cass	2.306	.000
23	Clark	4.403	14.586
24	Clay	1.670	1.091
25	Clinton	2.208	3.384
26	Crawford	1.220	.000
27	Daviess	2.332	1.215
28	Dearborn	2.071	.262
29	Decatur	3.248	.000
30	DeKalb	5.321	5.043
31	Delaware	5.206	1.631
32	Dubois	4.031	1.193
33	Elkhart	9.863	37.029
34	Fayette	2.131	.000
35	Floyd	4.447	2.144
36	Fountain	2.631	.177
37	Franklin	1.678	.000
38	Fulton	2.377	.181
39	Gibson	1.888	.000
40	Grant	2.597	1.325
41	Greene	1.875	.000
42	Hamilton	18.241	1.804
43	Hancock	5.106	.000
44	Harrison	1.989	1.267
45	Hendricks	5.215	.369
46	Henry	3.287	.000
47	Howard	3.289	.000
48	Huntington	3.203	1.259
49	Jackson	3.636	3.226
50	Jasper	2.084	.000
51	Jay	2.280	.000

	Locale	P10_30	A10_30
52	Jefferson	1.600	1.191
53	Jennings	1.761	.215
54	Johnson	3.946	1.777
55	Knox	3.766	.000
56	Kosciusko	4.769	6.456
57	LaGrange	3.255	.218
58	Lake	34.967	26.549
59	La Porte	7.523	5.820
60	Lawrence	3.338	.000
61	Madison	4.164	6.865
62	Marion	79.213	114.021
63	Marshall	3.219	2.714
64	Martin	1.710	.000
65	Miami	3.555	.929
66	Monroe	9.057	3.590
67	Montgomery	2.794	3.335
68	Morgan	1.901	9.233
69	Newton	2.012	.177
70	Noble	3.761	4.328
71	Ohio	1.220	.000
72	Orange	1.561	.000
73	Owen	1.290	.000
74	Parke	1.586	.000
75	Perry	1.806	.000
76	Pike	1.566	.000
77	Porter	15.737	8.851
78	Posey	2.673	33.946
79	Pulaski	3.111	.000
80	Putnam	1.575	.000
81	Randolph	1.842	.000
82	Ripley	2.432	1.187
83	Rush	2.009	.000
84	St. Joseph	21.194	16.352
85	Scott	1.298	3.336
86	Shelby	2.652	3.415
87	Spencer	2.785	.169
88	Starke	1.481	.995
89	Steuben	1.867	.000
90	Sullivan	2.181	.189
91	Switzerland	1.309	.000
92	Tippecanoe	8.823	39.006
93	Tipton	2.135	.170
94	Union	1.606	.791
95	Vanderburgh	12.529	46.757
96	Vermillion	1.640	27.257
97	Vigo	6.283	18.903
98	Wabash	2.400	6.051
99	Warren	1.620	.000
100	Warrick	7.270	1.706
101	Washington	1.302	.000
102	Wayne	4.296	2.097

	Locale	P10_30	A10_30
103	Wells	12.663	.000
104	White	3.247	.000
105	Whitley	2.653	.211
106	Iowa	201.161	121.471
107	Kansas	179.674	125.001
108	Kentucky_E	142.215	166.161
109	Kentucky_W	94.810	110.774
110	Louisiana	219.577	512.493
111	Maine	73.267	33.212
112	Maryland	303.288	322.730
113	Massachusetts	405.652	416.599
114	Michigan_E	244.006	311.568
115	Michigan_W	244.006	311.568
116	Minnesota	388.850	196.040
117	Mississippi	131.654	137.379
118	Missouri	398.960	439.948
119	Montana	51.969	10.446
120	Nebraska	125.951	51.415
121	Nevada	150.579	47.621
122	New Hampshire	75.074	42.058
123	New Jersey	938.986	1364.888
124	New Mexico	66.825	27.175
125	New York	1290.389	1103.931
126	North Carolina	604.643	1144.881
127	North Dakota	50.789	.972
128	Ohio_N	223.530	279.806
129	Ohio_M	223.530	279.806
130	Ohio_S	223.530	279.806
131	Oklahoma	177.789	74.574
132	Oregon	294.756	107.926
133	Pennsylvania	651.282	603.889
134	Rhode Island	49.464	49.276
135	South Carolina	199.247	833.878
136	South Dakota	52.132	13.128
137	Tennessee	439.662	765.675
138	Texas	1564.253	2144.401
139	Utah	172.190	151.845
140	Vermont	43.508	7.518
141	Virginia	363.502	468.383
142	Washington	471.316	133.483
143	West Virginia	58.581	228.144
144	Wisconsin	358.949	251.373
145	Wyoming	16.324	22.701

	Locale	P11_30	A11_30
1	Alabama	5292.841	5966.629
2	Arizona	11154.713	12326.531
3	Arkansas	2750.390	3929.044
4	California	64686.806	55516.274
5	Colorado	8011.632	6744.096
6	Connecticut	4582.693	4521.253
7	Delaware	884.912	1210.354
8	DC	.000	.000
9	Florida	31607.322	33970.331
10	Georgia	18076.258	14060.561
11	Idaho	1765.760	2330.610
12	Illinois_N	14746.006	10951.030
13	Illinois_S	7373.004	5475.515
14	Adams	17.027	50.986
15	Allen	969.684	526.494
16	Bartholomew	84.214	112.025
17	Benton	2.548	9.843
18	Blackford	5.666	15.415
19	Boone	63.076	96.035
20	Brown	1.060	20.863
21	Carroll	4.921	26.516
22	Cass	28.005	51.864
23	Clark	142.012	153.645
24	Clay	2.992	34.697
25	Clinton	16.703	46.756
26	Crawford	1.394	16.965
27	Daviess	11.539	40.768
28	Dearborn	24.897	90.554
29	Decatur	13.047	32.971
30	DeKalb	39.337	65.765
31	Delaware	115.822	163.105
32	Dubois	135.648	58.095
33	Elkhart	543.717	289.423
34	Fayette	7.648	30.298
35	Floyd	74.984	115.569
36	Fountain	2.598	22.027
37	Franklin	7.684	32.203
38	Fulton	5.002	27.376
39	Gibson	12.197	43.224
40	Grant	39.737	79.878
41	Greene	8.665	43.867
42	Hamilton	559.825	514.552
43	Hancock	28.974	115.015
44	Harrison	27.796	62.615
45	Hendricks	179.002	279.631
46	Henry	19.115	55.698
47	Howard	65.169	112.263
48	Huntington	27.611	57.943
49	Jackson	27.516	55.222
50	Jasper	13.932	42.936
51	Jay	5.805	25.281

	Locale	P11_30	A11_30
52	Jefferson	18.784	46.340
53	Jennings	8.835	43.062
54	Johnson	100.772	246.968
55	Knox	33.092	47.419
56	Kosciusko	58.157	105.128
57	LaGrange	31.007	61.004
58	Lake	544.355	623.629
59	La Porte	85.656	140.750
60	Lawrence	15.649	57.755
61	Madison	61.748	181.759
62	Marion	2428.141	1188.731
63	Marshall	59.992	68.161
64	Martin	2.008	12.133
65	Miami	17.737	41.948
66	Monroe	70.136	198.063
67	Montgomery	17.916	51.972
68	Morgan	47.018	120.389
69	Newton	3.113	18.196
70	Noble	23.899	67.045
71	Ohio	.000	7.559
72	Orange	4.516	26.571
73	Owen	7.080	32.253
74	Parke	6.145	21.141
75	Perry	5.361	22.656
76	Pike	8.930	17.095
77	Porter	152.430	204.583
78	Posey	25.988	37.205
79	Pulaski	11.358	17.697
80	Putnam	5.632	52.556
81	Randolph	10.362	32.356
82	Ripley	43.599	38.205
83	Rush	10.622	20.370
84	St. Joseph	500.220	387.137
85	Scott	7.058	33.515
86	Shelby	74.405	57.641
87	Spencer	6.964	25.568
88	Starke	4.092	29.667
89	Steuben	22.945	46.484
90	Sullivan	6.342	29.213
91	Switzerland	1.489	14.203
92	Tippecanoe	96.597	253.622
93	Tipton	7.184	20.072
94	Union	6.482	9.210
95	Vanderburgh	413.069	231.028
96	Vermillion	1.007	19.471
97	Vigo	100.398	130.164
98	Wabash	15.361	43.000
99	Warren	6.723	10.215
100	Warrick	16.412	88.770
101	Washington	9.715	40.082
102	Wayne	92.626	79.460

	Locale	P11_30	A11_30
103	Wells	12.810	39.984
104	White	14.287	32.715
105	Whitley	21.936	47.700
106	Iowa	3332.142	3638.722
107	Kansas	4100.933	3591.818
108	Kentucky_E	2559.554	3331.115
109	Kentucky_W	1706.370	2220.743
110	Louisiana	5052.795	5921.360
111	Maine	1138.392	1730.856
112	Maryland	7380.459	8521.889
113	Massachusetts	9750.390	8569.713
114	Michigan_E	6628.601	6577.311
115	Michigan_W	6628.601	6577.311
116	Minnesota	10907.801	7609.963
117	Mississippi	2192.195	3762.410
118	Missouri	8241.493	7850.619
119	Montana	924.690	1284.459
120	Nebraska	2251.631	2235.638
121	Nevada	4006.745	4711.427
122	New Hampshire	1915.502	1975.015
123	New Jersey	16814.718	11932.874
124	New Mexico	1452.750	2553.270
125	New York	21147.262	23865.489
126	North Carolina	14780.986	14496.350
127	North Dakota	787.411	764.811
128	Ohio_N	538.893	4766.444
129	Ohio_M	538.893	4766.444
130	Ohio_S	538.893	4766.444
131	Oklahoma	4118.124	4767.213
132	Oregon	6363.285	5818.338
133	Pennsylvania	14783.030	15844.003
134	Rhode Island	1349.374	1405.431
135	South Carolina	4682.514	6173.053
136	South Dakota	875.076	983.579
137	Tennessee	9374.643	8891.210
138	Texas	44733.818	39310.479
139	Utah	4341.661	4123.264
140	Vermont	566.550	870.445
141	Virginia	8989.145	11813.609
142	Washington	10148.722	10349.018
143	West Virginia	1428.967	2156.350
144	Wisconsin	7733.894	7526.406
145	Wyoming	407.226	646.072

	Locale	P12_30	A12_30
1	Alabama	48241.179	56247.917
2	Arizona	26274.679	30909.492
3	Arkansas	45824.055	40954.961
4	California	231877.087	233238.100
5	Colorado	21243.102	34024.677
6	Connecticut	16274.557	12737.083
7	Delaware	11049.228	6972.599
8	DC	.000	.000
9	Florida	73692.553	77074.131
10	Georgia	157813.322	159603.438
11	Idaho	13755.883	11793.197
12	Illinois_N	73966.400	59707.326
13	Illinois_S	36983.200	29853.663
14	Adams	1295.935	403.303
15	Allen	5875.642	4323.453
16	Bartholomew	1512.338	1499.242
17	Benton	48.231	52.264
18	Blackford	293.104	20.490
19	Boone	22.227	6.884
20	Brown	4.789	4.278
21	Carroll	905.221	808.755
22	Cass	1436.646	737.260
23	Clark	651.735	392.890
24	Clay	164.111	14.177
25	Clinton	1242.140	1098.025
26	Crawford	.000	.000
27	Daviess	607.064	488.046
28	Dearborn	85.498	2287.634
29	Decatur	533.585	173.924
30	DeKalb	2401.383	2916.141
31	Delaware	311.303	840.703
32	Dubois	1442.280	391.252
33	Elkhart	7305.219	2606.307
34	Fayette	.000	50.430
35	Floyd	1934.870	373.040
36	Fountain	28.178	744.593
37	Franklin	196.720	5.172
38	Fulton	201.495	456.839
39	Gibson	602.375	186.553
40	Grant	530.354	282.187
41	Greene	182.537	328.076
42	Hamilton	2184.404	1229.404
43	Hancock	33.250	22.222
44	Harrison	724.140	444.663
45	Hendricks	588.308	781.825
46	Henry	218.969	396.766
47	Howard	487.993	928.815
48	Huntington	558.282	394.534
49	Jackson	451.091	524.437
50	Jasper	174.499	103.754
51	Jay	332.832	287.527

	Locale	P12_30	A12_30
52	Jefferson	198.107	58.835
53	Jennings	1298.005	668.418
54	Johnson	1161.548	508.910
55	Knox	61.810	362.159
56	Kosciusko	1572.403	2363.713
57	LaGrange	936.653	120.120
58	Lake	1106.533	21563.769
59	La Porte	972.044	1780.989
60	Lawrence	228.743	1736.166
61	Madison	694.019	582.376
62	Marion	3941.623	8954.425
63	Marshall	2794.420	1176.822
64	Martin	24.752	169.569
65	Miami	325.868	33.540
66	Monroe	449.469	307.841
67	Montgomery	905.211	944.800
68	Morgan	135.589	104.264
69	Newton	402.487	171.822
70	Noble	2598.364	1428.843
71	Ohio	.000	.000
72	Orange	176.832	44.865
73	Owen	98.093	94.297
74	Parke	233.673	93.337
75	Perry	68.965	393.843
76	Pike	.000	61.824
77	Porter	473.232	8611.004
78	Posey	350.633	114.096
79	Pulaski	34.725	210.903
80	Putnam	1132.472	4.548
81	Randolph	81.673	297.208
82	Ripley	15.159	28.501
83	Rush	68.853	341.107
84	St. Joseph	3260.103	2384.031
85	Scott	1435.218	565.503
86	Shelby	1878.223	589.929
87	Spencer	344.811	184.826
88	Starke	145.255	.000
89	Steuben	826.408	712.953
90	Sullivan	165.874	.000
91	Switzerland	221.924	.000
92	Tippecanoe	1223.552	2723.868
93	Tipton	78.916	125.769
94	Union	.000	.000
95	Vanderburgh	5498.630	2823.199
96	Vermillion	3.309	2.957
97	Vigo	1680.481	494.923
98	Wabash	178.151	691.445
99	Warren	14.609	4.524
100	Warrick	25.307	4352.649
101	Washington	258.209	63.900
102	Wayne	1145.482	1020.774

	Locale	P12_30	A12_30
103	Wells	1096.891	473.744
104	White	351.705	89.286
105	Whitley	489.131	699.416
106	Iowa	36690.589	32013.268
107	Kansas	29151.754	20487.157
108	Kentucky_E	20897.923	29554.618
109	Kentucky_W	13931.948	19703.079
110	Louisiana	14547.903	18152.616
111	Maine	8168.298	7804.740
112	Maryland	20447.909	24125.032
113	Massachusetts	39176.107	28188.096
114	Michigan_E	40702.055	31308.601
115	Michigan_W	40702.055	31308.601
116	Minnesota	49257.842	38064.294
117	Mississippi	29307.412	22572.297
118	Missouri	44712.008	44729.752
119	Montana	1583.898	3426.003
120	Nebraska	23049.702	17711.545
121	Nevada	10879.465	9782.545
122	New Hampshire	10854.205	9723.741
123	New Jersey	54732.997	40903.837
124	New Mexico	2779.713	4296.083
125	New York	67088.497	64491.876
126	North Carolina	136423.860	133606.931
127	North Dakota	3290.400	2797.672
128	Ohio_N	36983.693	36526.203
129	Ohio_M	36983.693	36526.203
130	Ohio_S	36983.693	36526.203
131	Oklahoma	22691.012	18679.364
132	Oregon	23009.424	35376.127
133	Pennsylvania	89082.086	118588.784
134	Rhode Island	8360.258	7262.780
135	South Carolina	54362.592	39502.810
136	South Dakota	6304.800	5478.241
137	Tennessee	68897.068	57843.364
138	Texas	154917.309	153834.394
139	Utah	15995.531	21552.105
140	Vermont	4224.332	3232.214
141	Virginia	54913.392	70912.111
142	Washington	40400.369	51194.323
143	West Virginia	4758.703	13671.289
144	Wisconsin	65846.329	65815.131
145	Wyoming	723.793	909.671

	Locale	P13_30	A13_30
1	Alabama	5437.750	11620.474
2	Arizona	4982.997	3969.422
3	Arkansas	3121.382	8986.247
4	California	31469.268	26751.935
5	Colorado	3076.066	2375.128
6	Connecticut	6148.923	3677.927
7	Delaware	3321.310	1284.199
8	DC	.000	.000
9	Florida	12731.018	12515.536
10	Georgia	12455.769	24155.997
11	Idaho	1676.753	1683.758
12	Illinois_N	13859.674	11815.675
13	Illinois_S	6929.837	5907.838
14	Adams	77.019	.000
15	Allen	163.421	579.880
16	Bartholomew	75.852	469.046
17	Benton	.000	93.065
18	Blackford	.000	203.520
19	Boone	.000	9.607
20	Brown	3.725	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	301.306	42.685
24	Clay	22.536	.000
25	Clinton	69.899	38.421
26	Crawford	.000	.000
27	Daviess	25.092	.000
28	Dearborn	5.402	.000
29	Decatur	.000	.000
30	DeKalb	104.173	129.320
31	Delaware	33.698	290.459
32	Dubois	24.643	140.910
33	Elkhart	764.887	525.536
34	Fayette	.000	.000
35	Floyd	44.294	121.833
36	Fountain	3.653	.000
37	Franklin	.000	.000
38	Fulton	3.741	35.990
39	Gibson	.000	.000
40	Grant	27.362	192.085
41	Greene	.000	.000
42	Hamilton	37.260	.000
43	Hancock	.000	170.837
44	Harrison	26.164	.000
45	Hendricks	7.627	.000
46	Henry	.000	30.064
47	Howard	.000	.000
48	Huntington	25.999	121.570
49	Jackson	66.642	289.993
50	Jasper	.000	.000
51	Jay	.000	32.179

	Locale	P13_30	A13_30
52	Jefferson	24.608	.000
53	Jennings	4.437	42.679
54	Johnson	36.710	171.652
55	Knox	.000	30.657
56	Kosciusko	133.349	6.439
57	LaGrange	4.504	.000
58	Lake	548.419	241.607
59	La Porte	120.226	283.584
60	Lawrence	.000	.000
61	Madison	141.810	106.095
62	Marion	2355.294	1750.139
63	Marshall	56.065	320.120
64	Martin	.000	.000
65	Miami	19.185	192.235
66	Monroe	74.147	127.623
67	Montgomery	68.886	110.437
68	Morgan	190.713	.000
69	Newton	3.648	35.089
70	Noble	89.392	116.108
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	182.826	.000
78	Posey	701.202	.000
79	Pulaski	.000	6.275
80	Putnam	.000	.000
81	Randolph	.000	.000
82	Ripley	24.522	114.666
83	Rush	.000	31.232
84	St. Joseph	337.783	354.511
85	Scott	68.916	.000
86	Shelby	70.532	5.889
87	Spencer	3.497	.000
88	Starke	20.551	32.947
89	Steuben	.000	37.663
90	Sullivan	3.911	.000
91	Switzerland	.000	8.390
92	Tippecanoe	805.738	47.201
93	Tipton	3.508	33.739
94	Union	16.329	.000
95	Vanderburgh	965.851	413.532
96	Vermillion	563.043	90.266
97	Vigo	390.462	317.852
98	Wabash	125.000	200.398
99	Warren	.000	.000
100	Warrick	35.233	7.061
101	Washington	.000	.000
102	Wayne	43.311	118.889

	Locale	P13_30	A13_30
103	Wells	.000	42.053
104	White	.000	35.523
105	Whitley	4.357	122.227
106	Iowa	2509.180	3214.119
107	Kansas	2582.094	2113.871
108	Kentucky_E	3432.324	4021.670
109	Kentucky_W	2288.216	2681.114
110	Louisiana	10586.378	6859.656
111	Maine	686.048	7399.222
112	Maryland	6666.507	5166.881
113	Massachusetts	8605.523	12059.680
114	Michigan_E	6435.944	5814.152
115	Michigan_W	6435.944	5814.152
116	Minnesota	4049.522	11316.611
117	Mississippi	2837.777	5392.075
118	Missouri	9087.845	8514.833
119	Montana	215.776	493.243
120	Nebraska	1062.068	1011.102
121	Nevada	983.681	732.535
122	New Hampshire	868.777	2770.481
123	New Jersey	28193.964	11493.821
124	New Mexico	561.345	364.432
125	New York	22803.472	15020.715
126	North Carolina	23649.375	18230.351
127	North Dakota	20.073	32.180
128	Ohio_N	5779.842	5784.636
129	Ohio_M	5779.842	5784.636
130	Ohio_S	5779.842	5784.636
131	Oklahoma	1540.442	2477.333
132	Oregon	2229.395	6376.456
133	Pennsylvania	12474.312	19105.342
134	Rhode Island	1017.881	1234.032
135	South Carolina	17225.090	10026.947
136	South Dakota	271.184	396.219
137	Tennessee	15816.246	12618.105
138	Texas	44296.071	19150.676
139	Utah	3136.607	2416.785
140	Vermont	155.303	1161.901
141	Virginia	9675.204	11954.101
142	Washington	2757.309	12093.121
143	West Virginia	4712.675	336.474
144	Wisconsin	5192.508	27193.398
145	Wyoming	468.924	6.014

	Locale	P14_30	A14_30
1	Alabama	936.462	8320.956
2	Arizona	38375.446	4729.464
3	Arkansas	1035.545	3721.714
4	California	213.766	11663.046
5	Colorado	185.403	982.142
6	Connecticut	925.413	2073.754
7	Delaware	1104.151	329.027
8	DC	.000	.000
9	Florida	1104.705	2893.953
10	Georgia	1254.268	3191.679
11	Idaho	591.716	94.012
12	Illinois_N	363.520	9204.049
13	Illinois_S	181.760	4602.025
14	Adams	.000	71.436
15	Allen	.000	1001.202
16	Bartholomew	.000	287.042
17	Benton	.000	18.460
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	.000	53.094
24	Clay	.000	3.484
25	Clinton	.000	.000
26	Crawford	.000	.000
27	Daviess	.000	.000
28	Dearborn	.000	.000
29	Decatur	.000	3.575
30	DeKalb	.000	1018.798
31	Delaware	.000	263.648
32	Dubois	.000	.000
33	Elkhart	.000	487.284
34	Fayette	.000	17.813
35	Floyd	.000	4.028
36	Fountain	.000	254.108
37	Franklin	.000	.000
38	Fulton	.000	130.135
39	Gibson	.000	.000
40	Grant	.000	46.749
41	Greene	.000	57.491
42	Hamilton	.000	262.651
43	Hancock	.000	5.461
44	Harrison	.000	.000
45	Hendricks	.000	123.801
46	Henry	.000	108.708
47	Howard	.000	258.284
48	Huntington	.000	67.922
49	Jackson	.000	174.838
50	Jasper	.000	.000
51	Jay	.000	.000

	Locale	P14_30	A14_30
52	Jefferson	.000	3.804
53	Jennings	.000	24.692
54	Johnson	.000	170.242
55	Knox	.000	110.851
56	Kosciusko	.000	651.941
57	LaGrange	.000	4.178
58	Lake	.000	7136.628
59	La Porte	.000	534.308
60	Lawrence	.000	558.058
61	Madison	.000	81.023
62	Marion	.000	1317.084
63	Marshall	.000	152.803
64	Martin	.000	52.083
65	Miami	.000	.000
66	Monroe	.000	.000
67	Montgomery	.000	273.826
68	Morgan	.000	28.302
69	Newton	.000	59.210
70	Noble	.000	286.736
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	113.020
76	Pike	.000	21.837
77	Porter	.000	2984.916
78	Posey	.000	.000
79	Pulaski	.000	63.536
80	Putnam	.000	.000
81	Randolph	.000	94.538
82	Ripley	.000	.000
83	Rush	.000	112.933
84	St. Joseph	.000	636.065
85	Scott	.000	3.653
86	Shelby	.000	182.288
87	Spencer	.000	56.769
88	Starke	.000	.000
89	Steuben	.000	181.943
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	.000	796.484
93	Tipton	.000	19.519
94	Union	.000	.000
95	Vanderburgh	.000	66.882
96	Vermillion	.000	.000
97	Vigo	.000	131.853
98	Wabash	.000	231.878
99	Warren	.000	.000
100	Warrick	.000	1531.817
101	Washington	.000	3.863
102	Wayne	.000	265.015

	Locale	P14_30	A14_30
103	Wells	.000	70.961
104	White	.000	20.552
105	Whitley	.000	245.275
106	Iowa	862.820	3274.789
107	Kansas	934.379	992.672
108	Kentucky_E	577.734	3436.974
109	Kentucky_W	385.156	2291.316
110	Louisiana	918.187	1380.063
111	Maine	945.655	272.707
112	Maryland	1132.787	3222.726
113	Massachusetts	943.605	2163.501
114	Michigan_E	16117.235	6582.011
115	Michigan_W	16117.235	6582.011
116	Minnesota	122984.529	3188.719
117	Mississippi	928.810	1172.822
118	Missouri	4846.664	4834.456
119	Montana	1146.647	461.145
120	Nebraska	908.811	410.595
121	Nevada	238.625	1032.756
122	New Hampshire	.000	1564.326
123	New Jersey	995.345	3894.507
124	New Mexico	1145.140	663.613
125	New York	2817.887	5952.465
126	North Carolina	1297.918	3934.057
127	North Dakota	806.989	38.786
128	Ohio_N	289.751	8308.443
129	Ohio_M	289.751	8308.443
130	Ohio_S	289.751	8308.443
131	Oklahoma	968.938	1996.930
132	Oregon	2059.565	5040.658
133	Pennsylvania	888.287	21294.668
134	Rhode Island	311.738	1237.835
135	South Carolina	.000	2961.220
136	South Dakota	906.032	214.947
137	Tennessee	1108.399	7272.417
138	Texas	3082.989	15311.927
139	Utah	1333.481	3505.535
140	Vermont	73.386	103.328
141	Virginia	1185.908	3049.189
142	Washington	1250.230	6291.658
143	West Virginia	812.638	3525.522
144	Wisconsin	979.775	10130.982
145	Wyoming	904.917	43.493

	Locale	P15_30	A15_30
1	Alabama	74843.657	66589.907
2	Arizona	270596.452	135341.495
3	Arkansas	14285.132	61259.464
4	California	97047.300	222254.635
5	Colorado	57898.778	47110.401
6	Connecticut	7841.458	11982.174
7	Delaware	2183.062	11764.385
8	DC	.000	.000
9	Florida	134047.080	117353.114
10	Georgia	88864.241	117244.908
11	Idaho	34720.679	37068.021
12	Illinois_N	75183.947	75253.146
13	Illinois_S	25061.315	50122.630
14	Adams	719.662	698.218
15	Allen	1009.515	2263.210
16	Bartholomew	.000	1407.732
17	Benton	.000	.000
18	Blackford	81.024	80.222
19	Boone	163.321	86.674
20	Brown	.000	9.327
21	Carroll	657.894	2051.793
22	Cass	572.883	1786.668
23	Clark	2116.368	1248.713
24	Clay	614.165	278.909
25	Clinton	.000	2089.402
26	Crawford	2336.466	1025.272
27	Daviess	4273.896	2939.392
28	Dearborn	883.408	401.180
29	Decatur	630.226	633.645
30	DeKalb	577.856	322.826
31	Delaware	4051.670	1902.020
32	Dubois	671.604	1115.437
33	Elkhart	714.704	1023.942
34	Fayette	87.231	38.278
35	Floyd	.000	788.375
36	Fountain	.000	54.883
37	Franklin	122.700	65.117
38	Fulton	101.967	189.965
39	Gibson	4980.912	2592.380
40	Grant	470.960	397.787
41	Greene	1689.265	1073.875
42	Hamilton	2961.759	1506.482
43	Hancock	160.449	85.150
44	Harrison	1149.596	1473.831
45	Hendricks	1247.202	1427.772
46	Henry	85.178	84.336
47	Howard	607.136	414.250
48	Huntington	885.691	795.553
49	Jackson	103.783	79.871
50	Jasper	109.407	274.194
51	Jay	547.024	611.981

	Locale	P15_30	A15_30
52	Jefferson	.000	20.541
53	Jennings	725.514	318.365
54	Johnson	166.742	83.893
55	Knox	4099.658	1904.330
56	Kosciusko	109.463	969.328
57	LaGrange	122.750	254.624
58	Lake	601.050	1302.922
59	La Porte	267.270	627.533
60	Lawrence	590.309	310.692
61	Madison	618.362	981.557
62	Marion	1855.481	4573.691
63	Marshall	117.535	512.711
64	Martin	.000	48.210
65	Miami	522.860	277.480
66	Monroe	1723.214	866.661
67	Montgomery	107.278	416.713
68	Morgan	831.605	377.655
69	Newton	596.493	270.884
70	Noble	112.787	826.732
71	Ohio	.000	.000
72	Orange	528.822	285.061
73	Owen	113.052	59.996
74	Parke	.000	157.762
75	Perry	.000	8.137
76	Pike	641.646	281.563
77	Porter	107.615	365.615
78	Posey	109.200	108.120
79	Pulaski	640.071	348.505
80	Putnam	669.006	303.483
81	Randolph	91.076	104.401
82	Ripley	668.314	303.499
83	Rush	88.488	59.969
84	St. Joseph	642.253	964.403
85	Scott	107.324	416.892
86	Shelby	1121.295	653.020
87	Spencer	571.903	303.507
88	Starke	.000	.000
89	Steuben	106.708	293.901
90	Sullivan	3997.401	1754.113
91	Switzerland	855.704	375.494
92	Tippecanoe	802.394	1143.431
93	Tipton	.000	153.704
94	Union	.000	.000
95	Vanderburgh	1965.198	4476.812
96	Vermillion	87.684	44.922
97	Vigo	3874.257	1935.496
98	Wabash	90.844	89.945
99	Warren	644.080	292.494
100	Warrick	4500.955	1975.080
101	Washington	113.507	112.384
102	Wayne	84.918	587.340

	Locale	P15_30	A15_30
103	Wells	119.147	612.798
104	White	100.646	83.005
105	Whitley	.000	10.909
106	Iowa	17059.177	48955.943
107	Kansas	13617.968	35788.668
108	Kentucky_E	124088.790	66661.908
109	Kentucky_W	82725.864	44441.272
110	Louisiana	17199.490	24210.503
111	Maine	641.038	6499.217
112	Maryland	23574.246	30388.482
113	Massachusetts	18656.416	29334.099
114	Michigan_E	20867.401	24686.627
115	Michigan_W	20867.401	24686.627
116	Minnesota	92803.581	89461.856
117	Mississippi	11060.310	30605.881
118	Missouri	47013.957	59687.748
119	Montana	30867.364	15812.110
120	Nebraska	6674.006	35290.039
121	Nevada	241502.825	111769.729
122	New Hampshire	4822.828	4727.865
123	New Jersey	19679.376	39444.163
124	New Mexico	61873.197	31319.647
125	New York	31486.911	58254.033
126	North Carolina	48493.240	92130.073
127	North Dakota	14432.725	10867.046
128	Ohio_N	25805.708	26260.363
129	Ohio_M	25805.708	26260.363
130	Ohio_S	25805.708	26260.363
131	Oklahoma	22058.247	24326.552
132	Oregon	26689.844	36444.528
133	Pennsylvania	138002.653	131166.956
134	Rhode Island	1157.177	3256.621
135	South Carolina	21678.140	27447.275
136	South Dakota	16204.069	14682.859
137	Tennessee	45695.103	61800.571
138	Texas	127308.015	178207.017
139	Utah	74077.581	49153.480
140	Vermont	8464.979	7629.405
141	Virginia	140267.192	104349.542
142	Washington	41132.118	61679.126
143	West Virginia	154252.367	72125.289
144	Wisconsin	19371.548	67092.196
145	Wyoming	86165.455	38515.095

	Locale	P17_30	A17_30
1	Alabama	54904.282	46327.721
2	Arizona	14733.882	44283.068
3	Arkansas	24463.465	24415.066
4	California	342562.328	343362.889
5	Colorado	12549.172	26566.697
6	Connecticut	9485.990	18369.464
7	Delaware	20912.327	14491.072
8	DC	.000	.000
9	Florida	32965.315	118057.813
10	Georgia	31702.409	58274.302
11	Idaho	5150.049	9604.664
12	Illinois_N	82237.200	75372.026
13	Illinois_S	41118.600	37686.013
14	Adams	240.230	276.588
15	Allen	1474.804	2331.986
16	Bartholomew	.000	332.677
17	Benton	.000	29.231
18	Blackford	.000	45.779
19	Boone	.000	285.192
20	Brown	.000	61.956
21	Carroll	.000	78.745
22	Cass	.000	154.018
23	Clark	2446.377	1731.001
24	Clay	.000	103.039
25	Clinton	.000	138.850
26	Crawford	.000	50.379
27	Daviess	228.266	240.009
28	Dearborn	294.889	422.572
29	Decatur	.000	97.913
30	DeKalb	.000	195.300
31	Delaware	.000	484.367
32	Dubois	.000	172.523
33	Elkhart	238.574	983.805
34	Fayette	.000	89.974
35	Floyd	.000	343.203
36	Fountain	.000	65.413
37	Franklin	1474.503	863.947
38	Fulton	.000	81.298
39	Gibson	.000	128.362
40	Grant	.000	237.211
41	Greene	.000	130.271
42	Hamilton	338.969	1704.677
43	Hancock	.000	341.556
44	Harrison	1748.713	1097.143
45	Hendricks	.000	830.412
46	Henry	.000	165.406
47	Howard	.000	333.384
48	Huntington	236.521	295.315
49	Jackson	.000	163.992
50	Jasper	.000	127.507
51	Jay	182.601	170.224

	Locale	P17_30	A17_30
52	Jefferson	.000	137.614
53	Jennings	1453.098	885.041
54	Johnson	.000	733.414
55	Knox	173.962	231.465
56	Kosciusko	219.239	426.433
57	LaGrange	.000	181.161
58	Lake	43317.254	24423.155
59	La Porte	198.260	521.287
60	Lawrence	1126.002	758.235
61	Madison	.000	539.765
62	Marion	2527.053	4846.902
63	Marshall	1412.426	938.385
64	Martin	.000	36.030
65	Miami	.000	124.572
66	Monroe	1489.788	1364.462
67	Montgomery	.000	154.340
68	Morgan	.000	357.515
69	Newton	.000	54.036
70	Noble	.000	199.101
71	Ohio	.000	22.447
72	Orange	.000	78.907
73	Owen	.000	95.781
74	Parke	.000	62.782
75	Perry	.000	67.282
76	Pike	.000	50.768
77	Porter	.000	607.543
78	Posey	8201.645	4384.090
79	Pulaski	.000	52.556
80	Putnam	.000	156.075
81	Randolph	182.411	191.136
82	Ripley	223.089	229.701
83	Rush	.000	60.491
84	St. Joseph	214.390	1261.380
85	Scott	214.954	211.536
86	Shelby	.000	171.176
87	Spencer	.000	75.928
88	Starke	.000	88.101
89	Steuben	213.720	249.406
90	Sullivan	.000	86.754
91	Switzerland	.000	42.178
92	Tippecanoe	267.846	892.740
93	Tipton	.000	59.606
94	Union	.000	27.351
95	Vanderburgh	.000	686.077
96	Vermillion	.000	57.822
97	Vigo	.000	386.543
98	Wabash	181.947	222.502
99	Warren	.000	30.334
100	Warrick	.000	263.618
101	Washington	.000	119.031
102	Wayne	.000	235.971

	Locale	P17_30	A17_30
103	Wells	.000	118.739
104	White	.000	97.154
105	Whitley	.000	141.652
106	Iowa	3416.701	12586.135
107	Kansas	58587.909	41194.729
108	Kentucky_E	16655.048	18570.705
109	Kentucky_W	11103.365	12380.470
110	Louisiana	258194.033	152120.831
111	Maine	3744.721	7091.322
112	Maryland	27786.019	39785.572
113	Massachusetts	22419.624	37131.343
114	Michigan_E	21167.604	30562.180
115	Michigan_W	21167.604	30562.180
116	Minnesota	47831.020	47522.238
117	Mississippi	40521.225	32287.382
118	Missouri	31328.083	39637.773
119	Montana	18181.849	13288.377
120	Nebraska	205.647	6746.262
121	Nevada	2485.796	15286.649
122	New Hampshire	3966.798	7932.111
123	New Jersey	79370.304	76793.932
124	New Mexico	17317.511	16605.951
125	New York	31670.718	87375.193
126	North Carolina	20264.923	53608.758
127	North Dakota	3195.614	3936.364
128	Ohio_N	36952.523	33409.501
129	Ohio_M	36952.523	33409.501
130	Ohio_S	36952.523	33409.501
131	Oklahoma	55777.870	43221.047
132	Oregon	19584.985	27483.630
133	Pennsylvania	145324.994	122775.496
134	Rhode Island	212.629	4284.461
135	South Carolina	9303.880	23179.875
136	South Dakota	205.018	3027.733
137	Tennessee	33683.768	43955.454
138	Texas	680541.544	471346.779
139	Utah	46226.841	36332.007
140	Vermont	1356.328	3291.671
141	Virginia	18033.044	44478.943
142	Washington	57627.475	60760.935
143	West Virginia	7263.445	10188.390
144	Wisconsin	9267.261	27179.805
145	Wyoming	17118.425	10838.463

	Locale	P18_30	A18_30
1	Alabama	25647.239	23830.274
2	Arizona	6882.585	8791.603
3	Arkansas	11427.530	11093.029
4	California	160019.903	147011.416
5	Colorado	5862.050	6693.566
6	Connecticut	4431.156	7660.328
7	Delaware	9768.700	9926.902
8	DC	.000	.000
9	Florida	15398.968	20746.241
10	Georgia	14809.032	20095.963
11	Idaho	2405.724	3028.794
12	Illinois_N	38415.166	39580.518
13	Illinois_S	19207.583	19790.259
14	Adams	112.218	140.469
15	Allen	688.920	651.918
16	Bartholomew	.000	51.589
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	2.533
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	1142.767	1101.947
24	Clay	.000	15.327
25	Clinton	.000	47.541
26	Crawford	.000	.000
27	Daviess	106.629	100.764
28	Dearborn	137.751	111.802
29	Decatur	.000	.000
30	DeKalb	.000	70.851
31	Delaware	.000	22.919
32	Dubois	.000	16.761
33	Elkhart	111.444	607.703
34	Fayette	.000	.000
35	Floyd	.000	30.126
36	Fountain	.000	2.484
37	Franklin	688.779	540.660
38	Fulton	.000	2.545
39	Gibson	.000	.000
40	Grant	.000	18.609
41	Greene	.000	.000
42	Hamilton	158.342	149.633
43	Hancock	.000	.000
44	Harrison	816.870	658.999
45	Hendricks	.000	5.188
46	Henry	.000	.000
47	Howard	.000	.000
48	Huntington	110.485	104.409
49	Jackson	.000	45.325
50	Jasper	.000	.000
51	Jay	85.298	66.955

	Locale	P18_30	A18_30
52	Jefferson	.000	16.737
53	Jennings	678.780	535.829
54	Johnson	.000	24.967
55	Knox	81.262	63.787
56	Kosciusko	102.412	171.084
57	LaGrange	.000	3.063
58	Lake	20234.632	16256.241
59	La Porte	92.613	154.466
60	Lawrence	525.985	412.874
61	Madison	.000	96.450
62	Marion	1180.453	2528.511
63	Marshall	659.781	556.029
64	Martin	.000	.000
65	Miami	.000	13.049
66	Monroe	695.919	596.694
67	Montgomery	.000	46.852
68	Morgan	.000	129.710
69	Newton	.000	2.481
70	Noble	.000	60.798
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	.000	124.346
78	Posey	3831.205	3484.227
79	Pulaski	.000	.000
80	Putnam	.000	.000
81	Randolph	85.209	66.885
82	Ripley	104.211	98.479
83	Rush	.000	.000
84	St. Joseph	100.147	308.348
85	Scott	100.411	125.690
86	Shelby	.000	47.971
87	Spencer	.000	2.379
88	Starke	.000	13.977
89	Steuben	99.834	78.365
90	Sullivan	.000	2.660
91	Switzerland	.000	.000
92	Tippecanoe	125.118	646.220
93	Tipton	.000	2.386
94	Union	.000	11.106
95	Vanderburgh	.000	656.906
96	Vermillion	.000	382.943
97	Vigo	.000	265.565
98	Wabash	84.992	151.732
99	Warren	.000	.000
100	Warrick	.000	23.963
101	Washington	.000	.000
102	Wayne	.000	29.457

	Locale	P18_30	A18_30
103	Wells	.000	.000
104	White	.000	.000
105	Whitley	.000	2.963
106	Iowa	1596.031	2959.383
107	Kansas	27367.958	23238.736
108	Kentucky_E	7780.013	8441.380
109	Kentucky_W	5186.675	5627.586
110	Louisiana	120609.246	101872.772
111	Maine	1749.258	1839.689
112	Maryland	12979.583	14722.470
113	Massachusetts	10472.798	14073.547
114	Michigan_E	9887.947	12138.866
115	Michigan_W	9887.947	12138.866
116	Minnesota	22343.132	20292.526
117	Mississippi	18928.533	16788.079
118	Missouri	14634.174	17668.077
119	Montana	8493.221	6813.539
120	Nebraska	96.063	797.751
121	Nevada	1161.181	1580.506
122	New Hampshire	1852.996	2045.398
123	New Jersey	37075.963	48278.512
124	New Mexico	8089.466	6731.642
125	New York	14794.228	27122.143
126	North Carolina	9466.280	23515.278
127	North Dakota	1492.756	1185.396
128	Ohio_N	17261.498	17480.526
129	Ohio_M	17261.498	17480.526
130	Ohio_S	17261.498	17480.526
131	Oklahoma	26055.315	21499.912
132	Oregon	9148.663	8697.557
133	Pennsylvania	67885.139	61770.847
134	Rhode Island	99.325	770.258
135	South Carolina	4346.088	15126.806
136	South Dakota	95.769	259.615
137	Tennessee	15734.577	23108.040
138	Texas	317898.913	279663.001
139	Utah	21593.777	19083.415
140	Vermont	633.577	602.955
141	Virginia	8423.711	13192.633
142	Washington	26919.314	23005.741
143	West Virginia	3392.947	5868.545
144	Wisconsin	4328.982	6929.639
145	Wyoming	7996.468	6595.785

	Locale	P19_30	A19_30
1	Alabama	25845.283	24909.216
2	Arizona	10029.538	11013.029
3	Arkansas	12129.052	11956.724
4	California	159097.201	152395.468
5	Colorado	7516.834	7945.216
6	Connecticut	9039.187	10702.797
7	Delaware	10941.742	11023.245
8	DC	.000	.000
9	Florida	23829.014	26583.830
10	Georgia	23102.675	25826.405
11	Idaho	3448.640	3769.634
12	Illinois_N	43729.378	44329.746
13	Illinois_S	21864.689	22164.873
14	Adams	159.817	174.371
15	Allen	709.478	690.415
16	Bartholomew	66.597	93.175
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	3.270	4.575
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	1203.406	1182.376
24	Clay	19.786	27.682
25	Clinton	61.371	85.863
26	Crawford	.000	.000
27	Daviess	109.633	106.612
28	Dearborn	117.915	104.547
29	Decatur	.000	.000
30	DeKalb	91.463	127.964
31	Delaware	29.587	41.394
32	Dubois	21.636	30.271
33	Elkhart	763.121	1018.784
34	Fayette	.000	.000
35	Floyd	38.890	54.410
36	Fountain	3.207	4.487
37	Franklin	565.880	489.572
38	Fulton	3.285	4.596
39	Gibson	.000	.000
40	Grant	24.023	33.610
41	Greene	.000	.000
42	Hamilton	162.803	158.316
43	Hancock	.000	.000
44	Harrison	694.087	612.755
45	Hendricks	6.697	9.369
46	Henry	.000	.000
47	Howard	.000	.000
48	Huntington	113.598	110.468
49	Jackson	58.511	81.862
50	Jasper	.000	.000
51	Jay	70.078	60.628

	Locale	P19_30	A19_30
52	Jefferson	21.606	30.228
53	Jennings	561.561	487.915
54	Johnson	32.231	45.093
55	Knox	66.763	57.760
56	Kosciusko	201.218	236.596
57	LaGrange	3.955	5.533
58	Lake	17105.673	15056.079
59	La Porte	181.645	213.511
60	Lawrence	432.134	373.861
61	Madison	124.508	174.197
62	Marion	3037.745	3732.240
63	Marshall	591.281	537.830
64	Martin	.000	.000
65	Miami	16.844	23.567
66	Monroe	636.847	585.728
67	Montgomery	60.481	84.619
68	Morgan	167.444	234.269
69	Newton	3.203	4.481
70	Noble	78.485	109.807
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	160.519	224.579
78	Posey	3763.250	3584.493
79	Pulaski	.000	.000
80	Putnam	.000	.000
81	Randolph	70.005	60.565
82	Ripley	107.147	104.194
83	Rush	.000	.000
84	St. Joseph	378.847	486.108
85	Scott	143.002	156.025
86	Shelby	61.926	86.640
87	Spencer	3.071	4.296
88	Starke	18.044	25.244
89	Steuben	82.021	70.960
90	Sullivan	3.434	4.805
91	Switzerland	.000	.000
92	Tippecanoe	810.222	1078.684
93	Tipton	3.080	4.309
94	Union	14.337	20.058
95	Vanderburgh	848.006	1186.431
96	Vermillion	494.345	691.630
97	Vigo	342.821	479.635
98	Wabash	179.576	213.959
99	Warren	.000	.000
100	Warrick	30.934	43.279
101	Washington	.000	.000
102	Wayne	38.027	53.202

	Locale	P19_30	A19_30
103	Wells	.000	.000
104	White	.000	.000
105	Whitley	3.825	5.352
106	Iowa	3514.282	4216.655
107	Kansas	24751.742	22624.443
108	Kentucky_E	9405.365	9746.089
109	Kentucky_W	6270.243	6497.393
110	Louisiana	108383.657	98730.969
111	Maine	2039.480	2086.069
112	Maryland	16516.750	17414.654
113	Massachusetts	16159.684	18014.724
114	Michigan_E	13774.322	14933.955
115	Michigan_W	13774.322	14933.955
116	Minnesota	21911.880	20855.445
117	Mississippi	18042.651	16939.928
118	Missouri	20002.019	21565.030
119	Montana	7167.225	6301.883
120	Nebraska	1011.406	1372.903
121	Nevada	1817.652	2033.680
122	New Hampshire	2285.142	2384.264
123	New Jersey	55214.466	60985.814
124	New Mexico	7138.917	6439.391
125	New York	32175.673	38526.788
126	North Carolina	28541.083	35778.869
127	North Dakota	1244.027	1085.681
128	Ohio_N	19256.162	19369.001
129	Ohio_M	19256.162	19369.001
130	Ohio_S	19256.162	19369.001
131	Oklahoma	22758.756	20411.896
132	Oregon	9473.650	9241.248
133	Pennsylvania	66724.694	63574.723
134	Rhode Island	975.289	1320.942
135	South Carolina	18694.040	24248.068
136	South Dakota	316.778	401.188
137	Tennessee	26813.534	30612.207
138	Texas	300067.646	280369.207
139	Utah	20494.704	19201.411
140	Vermont	656.882	641.106
141	Virginia	15415.383	17872.244
142	Washington	24536.987	22520.786
143	West Virginia	6925.217	8200.599
144	Wisconsin	8115.523	9455.333
145	Wyoming	6981.368	6259.762

	Locale	P20_30	A20_30
1	Alabama	15301.789	13689.674
2	Arizona	4106.324	9942.930
3	Arkansas	6817.952	5838.935
4	California	95471.905	112595.986
5	Colorado	3497.446	6318.328
6	Connecticut	2643.739	3796.081
7	Delaware	5828.252	4846.844
8	DC	.000	.000
9	Florida	9187.413	14896.909
10	Georgia	8835.442	8973.555
11	Idaho	1435.316	2906.563
12	Illinois_N	22919.456	22077.122
13	Illinois_S	11459.728	11038.561
14	Adams	66.952	116.006
15	Allen	411.027	637.995
16	Bartholomew	.000	56.812
17	Benton	.000	.000
18	Blackford	.000	.000
19	Boone	.000	45.338
20	Brown	.000	.704
21	Carroll	.000	.000
22	Cass	.000	24.849
23	Clark	681.804	553.130
24	Clay	.000	.710
25	Clinton	.000	56.660
26	Crawford	.000	.000
27	Daviess	63.618	50.907
28	Dearborn	82.185	66.786
29	Decatur	.000	.000
30	DeKalb	.000	25.196
31	Delaware	.000	.750
32	Dubois	.000	58.262
33	Elkhart	66.491	236.729
34	Fayette	.000	.000
35	Floyd	.000	49.938
36	Fountain	.000	4.145
37	Franklin	410.943	328.835
38	Fulton	.000	.708
39	Gibson	.000	18.185
40	Grant	.000	.000
41	Greene	.000	4.020
42	Hamilton	94.471	99.556
43	Hancock	.000	1.114
44	Harrison	487.365	389.987
45	Hendricks	.000	25.246
46	Henry	.000	3.429
47	Howard	.000	4.705
48	Huntington	65.918	177.896
49	Jackson	.000	.000
50	Jasper	.000	13.288
51	Jay	50.891	40.723

	Locale	P20_30	A20_30
52	Jefferson	.000	.000
53	Jennings	404.977	324.061
54	Johnson	.000	66.539
55	Knox	48.483	43.679
56	Kosciusko	61.102	58.009
57	LaGrange	.000	5.111
58	Lake	12072.491	9672.305
59	La Porte	55.255	49.161
60	Lawrence	313.816	255.016
61	Madison	.000	.715
62	Marion	704.288	700.581
63	Marshall	393.642	315.806
64	Martin	.000	.000
65	Miami	.000	.605
66	Monroe	415.203	419.486
67	Montgomery	.000	.000
68	Morgan	.000	168.333
69	Newton	.000	12.074
70	Noble	.000	4.697
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.615
76	Pike	.000	.000
77	Porter	.000	8.290
78	Posey	2285.793	1829.080
79	Pulaski	.000	.000
80	Putnam	.000	13.105
81	Randolph	50.838	44.473
82	Ripley	62.175	54.390
83	Rush	.000	.614
84	St. Joseph	59.750	116.008
85	Scott	59.908	47.938
86	Shelby	.000	.000
87	Spencer	.000	.000
88	Starke	.000	.000
89	Steuben	59.564	52.106
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	74.649	170.365
93	Tipton	.000	.000
94	Union	.000	.000
95	Vanderburgh	.000	.779
96	Vermillion	.000	.000
97	Vigo	.000	125.476
98	Wabash	50.708	73.865
99	Warren	.000	.000
100	Warrick	.000	.000
101	Washington	.000	.000
102	Wayne	.000	54.749

	Locale	P20_30	A20_30
103	Wells	.000	.827
104	White	.000	12.224
105	Whitley	.000	14.255
106	Iowa	952.232	1855.373
107	Kansas	16328.413	13535.679
108	Kentucky_E	4641.752	4234.615
109	Kentucky_W	3094.501	2823.077
110	Louisiana	71958.515	57736.205
111	Maine	1043.651	1308.186
112	Maryland	7743.946	8345.943
113	Massachusetts	6248.335	12332.284
114	Michigan_E	5899.398	5649.934
115	Michigan_W	5899.398	5649.934
116	Minnesota	13330.475	15839.075
117	Mississippi	11293.240	9387.018
118	Missouri	8731.117	8094.241
119	Montana	5067.270	4092.046
120	Nebraska	57.314	487.025
121	Nevada	692.790	1055.818
122	New Hampshire	1105.544	3109.256
123	New Jersey	22120.454	20443.678
124	New Mexico	4826.379	4727.505
125	New York	8826.609	12855.623
126	North Carolina	5647.821	9774.663
127	North Dakota	890.616	806.376
128	Ohio_N	10298.645	9072.984
129	Ohio_M	10298.645	9072.984
130	Ohio_S	10298.645	9072.984
131	Oklahoma	15545.257	13414.125
132	Oregon	5458.323	8159.490
133	Pennsylvania	40501.984	36475.202
134	Rhode Island	59.260	541.872
135	South Carolina	2592.986	3545.932
136	South Dakota	57.138	979.908
137	Tennessee	9387.645	8690.508
138	Texas	189666.500	166688.041
139	Utah	12883.391	11989.031
140	Vermont	378.008	1069.568
141	Virginia	5025.798	6909.843
142	Washington	16060.741	17529.666
143	West Virginia	2024.318	1677.513
144	Wisconsin	2582.780	3837.727
145	Wyoming	4770.894	3849.433

	Locale	P21_30	A21_30
1	Alabama	635.350	274.543
2	Arizona	345.927	370.046
3	Arkansas	320.369	173.104
4	California	2071.516	2325.045
5	Colorado	142.572	245.451
6	Connecticut	106.322	293.281
7	Delaware	29.486	131.756
8	DC	.000	.000
9	Florida	726.752	1128.547
10	Georgia	1387.781	716.788
11	Idaho	54.344	110.910
12	Illinois_N	299.240	716.700
13	Illinois_S	149.620	358.350
14	Adams	6.526	3.051
15	Allen	24.612	21.254
16	Bartholomew	18.189	3.089
17	Benton	1.114	.432
18	Blackford	.166	.161
19	Boone	2.012	1.464
20	Brown	.000	.144
21	Carroll	8.442	.668
22	Cass	.196	.619
23	Clark	27.783	10.450
24	Clay	.210	.903
25	Clinton	1.341	2.588
26	Crawford	.000	.000
27	Daviess	1.404	1.361
28	Dearborn	.000	.642
29	Decatur	.216	1.150
30	DeKalb	.258	3.587
31	Delaware	3.128	2.791
32	Dubois	151.443	2.316
33	Elkhart	94.407	26.237
34	Fayette	1.075	.488
35	Floyd	10.764	3.115
36	Fountain	.000	.469
37	Franklin	.000	.261
38	Fulton	.000	.542
39	Gibson	.000	.381
40	Grant	2.820	1.496
41	Greene	.198	.274
42	Hamilton	9.290	10.326
43	Hancock	1.976	2.206
44	Harrison	19.389	1.196
45	Hendricks	.427	2.283
46	Henry	3.060	.990
47	Howard	7.791	.731
48	Huntington	.000	1.766
49	Jackson	1.278	3.004
50	Jasper	.225	.492
51	Jay	1.123	.604

	Locale	P21_30	A21_30
52	Jefferson	.229	.923
53	Jennings	.000	.394
54	Johnson	2.978	2.322
55	Knox	.178	1.259
56	Kosciusko	7.020	4.755
57	LaGrange	7.586	1.283
58	Lake	5.203	22.739
59	La Porte	4.333	6.148
60	Lawrence	.192	.239
61	Madison	8.831	5.645
62	Marion	28.390	110.396
63	Marshall	1.448	2.499
64	Martin	.000	.189
65	Miami	6.709	1.886
66	Monroe	1.782	6.615
67	Montgomery	.000	2.417
68	Morgan	.285	5.863
69	Newton	1.225	.454
70	Noble	1.389	3.540
71	Ohio	.000	.000
72	Orange	34.545	.194
73	Owen	.000	.040
74	Parke	.201	.209
75	Perry	5.327	.138
76	Pike	.000	.159
77	Porter	1.970	8.392
78	Posey	.000	21.140
79	Pulaski	.219	.968
80	Putnam	.000	.203
81	Randolph	.901	.190
82	Ripley	4.002	1.401
83	Rush	.000	.254
84	St. Joseph	3.832	20.066
85	Scott	1.322	2.034
86	Shelby	6.824	2.543
87	Spencer	14.677	.895
88	Starke	.192	.744
89	Steuben	.219	.053
90	Sullivan	.000	.661
91	Switzerland	.293	.051
92	Tippecanoe	20.592	26.292
93	Tipton	.000	.589
94	Union	.000	.693
95	Vanderburgh	9.392	34.308
96	Vermillion	.000	16.549
97	Vigo	1.273	13.968
98	Wabash	.187	3.891
99	Warren	.000	.228
100	Warrick	.246	1.812
101	Washington	40.781	.040
102	Wayne	12.448	2.548

	Locale	P21_30	A21_30
103	Wells	.400	6.400
104	White	5.917	1.120
105	Whitley	1.073	.517
106	Iowa	170.946	180.968
107	Kansas	105.041	174.792
108	Kentucky_E	92.225	174.106
109	Kentucky_W	61.484	116.071
110	Louisiana	28.475	428.725
111	Maine	101.690	60.466
112	Maryland	138.952	359.696
113	Massachusetts	327.098	476.049
114	Michigan_E	365.787	313.746
115	Michigan_W	365.787	313.746
116	Minnesota	307.601	332.719
117	Mississippi	661.834	154.514
118	Missouri	288.152	481.571
119	Montana	19.422	34.377
120	Nebraska	70.358	101.149
121	Nevada	71.278	111.837
122	New Hampshire	80.650	64.548
123	New Jersey	330.415	1344.464
124	New Mexico	23.435	52.504
125	New York	593.662	1385.047
126	North Carolina	4458.576	1022.177
127	North Dakota	20.837	28.768
128	Ohio_N	158.845	280.189
129	Ohio_M	158.845	280.189
130	Ohio_S	158.845	280.189
131	Oklahoma	82.532	141.801
132	Oregon	172.487	223.149
133	Pennsylvania	685.805	694.931
134	Rhode Island	129.210	54.836
135	South Carolina	1126.352	606.697
136	South Dakota	44.601	36.503
137	Tennessee	837.811	695.443
138	Texas	929.533	2147.486
139	Utah	184.487	182.229
140	Vermont	67.490	28.424
141	Virginia	991.008	481.472
142	Washington	229.975	336.909
143	West Virginia	25.723	163.091
144	Wisconsin	424.628	336.739
145	Wyoming	4.709	22.117

	Locale	P22_30	A22_30
1	Alabama	5345.837	5345.837
2	Arizona	11044.029	11044.029
3	Arkansas	3520.251	3520.251
4	California	49740.140	49740.140
5	Colorado	6042.413	6042.413
6	Connecticut	4050.844	4050.844
7	Delaware	1084.424	1084.424
8	DC	.000	.000
9	Florida	30435.923	30435.923
10	Georgia	12597.644	12597.644
11	Idaho	2088.124	2088.124
12	Illinois_N	9811.642	9811.642
13	Illinois_S	4905.821	4905.821
14	Adams	45.681	45.681
15	Allen	471.716	471.716
16	Bartholomew	100.369	100.369
17	Benton	8.819	8.819
18	Blackford	13.812	13.812
19	Boone	86.043	86.043
20	Brown	18.692	18.692
21	Carroll	23.757	23.757
22	Cass	46.467	46.467
23	Clark	137.659	137.659
24	Clay	31.087	31.087
25	Clinton	41.891	41.891
26	Crawford	15.200	15.200
27	Daviess	36.526	36.526
28	Dearborn	81.132	81.132
29	Decatur	29.540	29.540
30	DeKalb	58.922	58.922
31	Delaware	146.134	146.134
32	Dubois	52.051	52.051
33	Elkhart	259.311	259.311
34	Fayette	27.145	27.145
35	Floyd	103.545	103.545
36	Fountain	19.735	19.735
37	Franklin	28.853	28.853
38	Fulton	24.528	24.528
39	Gibson	38.727	38.727
40	Grant	71.567	71.567
41	Greene	39.303	39.303
42	Hamilton	461.016	461.016
43	Hancock	103.048	103.048
44	Harrison	56.101	56.101
45	Hendricks	250.537	250.537
46	Henry	49.903	49.903
47	Howard	100.583	100.583
48	Huntington	51.914	51.914
49	Jackson	49.477	49.477
50	Jasper	38.469	38.469
51	Jay	22.651	22.651

	Locale	P22_30	A22_30
52	Jefferson	41.519	41.519
53	Jennings	38.582	38.582
54	Johnson	221.273	221.273
55	Knox	42.486	42.486
56	Kosciusko	94.190	94.190
57	LaGrange	54.657	54.657
58	Lake	558.744	558.744
59	La Porte	126.105	126.105
60	Lawrence	51.746	51.746
61	Madison	162.848	162.848
62	Marion	1065.051	1065.051
63	Marshall	61.070	61.070
64	Martin	10.870	10.870
65	Miami	37.584	37.584
66	Monroe	177.456	177.456
67	Montgomery	46.565	46.565
68	Morgan	107.863	107.863
69	Newton	16.303	16.303
70	Noble	60.069	60.069
71	Ohio	6.772	6.772
72	Orange	23.807	23.807
73	Owen	28.897	28.897
74	Parke	18.941	18.941
75	Perry	20.299	20.299
76	Pike	15.317	15.317
77	Porter	183.297	183.297
78	Posey	33.334	33.334
79	Pulaski	15.856	15.856
80	Putnam	47.088	47.088
81	Randolph	28.990	28.990
82	Ripley	34.230	34.230
83	Rush	18.250	18.250
84	St. Joseph	346.858	346.858
85	Scott	30.028	30.028
86	Shelby	51.644	51.644
87	Spencer	22.908	22.908
88	Starke	26.580	26.580
89	Steuben	41.648	41.648
90	Sullivan	26.174	26.174
91	Switzerland	12.725	12.725
92	Tippecanoe	227.234	227.234
93	Tipton	17.983	17.983
94	Union	8.252	8.252
95	Vanderburgh	206.991	206.991
96	Vermillion	17.445	17.445
97	Vigo	116.621	116.621
98	Wabash	38.526	38.526
99	Warren	9.152	9.152
100	Warrick	79.534	79.534
101	Washington	35.912	35.912
102	Wayne	71.193	71.193

	Locale	P22_30	A22_30
103	Wells	35.824	35.824
104	White	29.312	29.312
105	Whitley	42.737	42.737
106	Iowa	3260.135	3260.135
107	Kansas	3218.111	3218.111
108	Kentucky_E	2984.532	2984.532
109	Kentucky_W	1989.688	1989.688
110	Louisiana	5305.278	5305.278
111	Maine	1550.771	1550.771
112	Maryland	7635.238	7635.238
113	Massachusetts	7678.086	7678.086
114	Michigan_E	5892.981	5892.981
115	Michigan_W	5892.981	5892.981
116	Minnesota	6818.192	6818.192
117	Mississippi	3370.954	3370.954
118	Missouri	7033.809	7033.809
119	Montana	1150.819	1150.819
120	Nebraska	2003.033	2003.033
121	Nevada	4221.231	4221.231
122	New Hampshire	1769.527	1769.527
123	New Jersey	10691.330	10691.330
124	New Mexico	2287.618	2287.618
125	New York	21382.429	21382.429
126	North Carolina	12988.092	12988.092
127	North Dakota	685.237	685.237
128	Ohio_N	4270.524	4270.524
129	Ohio_M	4270.524	4270.524
130	Ohio_S	4270.524	4270.524
131	Oklahoma	4271.213	4271.213
132	Oregon	5212.975	5212.975
133	Pennsylvania	14195.530	14195.530
134	Rhode Island	1259.205	1259.205
135	South Carolina	5530.784	5530.784
136	South Dakota	881.243	881.243
137	Tennessee	7966.133	7966.133
138	Texas	35220.461	35220.461
139	Utah	3694.263	3694.263
140	Vermont	779.880	779.880
141	Virginia	10584.474	10584.474
142	Washington	9272.265	9272.265
143	West Virginia	1931.995	1931.995
144	Wisconsin	6743.329	6743.329
145	Wyoming	578.852	578.852

	Locale	P23_30	A23_30
1	Alabama	2962.479	3955.848
2	Arizona	3715.982	3061.754
3	Arkansas	2271.974	2064.074
4	California	22114.847	22948.660
5	Colorado	1832.550	1876.553
6	Connecticut	3942.493	1524.289
7	Delaware	657.769	868.354
8	DC	.000	.000
9	Florida	6485.589	8300.292
10	Georgia	4845.373	12466.741
11	Idaho	631.713	589.825
12	Illinois_N	8204.197	5667.725
13	Illinois_S	4102.098	2833.863
14	Adams	43.272	68.652
15	Allen	269.197	379.305
16	Bartholomew	95.969	57.540
17	Benton	4.579	3.903
18	Blackford	36.314	16.194
19	Boone	34.446	14.456
20	Brown	4.704	2.977
21	Carroll	32.864	3.784
22	Cass	47.099	41.517
23	Clark	129.104	96.208
24	Clay	10.709	13.202
25	Clinton	28.094	15.446
26	Crawford	.000	2.421
27	Daviess	15.561	13.166
28	Dearborn	23.474	22.415
29	Decatur	207.764	22.847
30	DeKalb	294.293	131.930
31	Delaware	144.958	36.699
32	Dubois	14.973	61.792
33	Elkhart	614.694	443.097
34	Fayette	22.695	4.323
35	Floyd	57.095	95.747
36	Fountain	4.614	3.143
37	Franklin	.851	41.612
38	Fulton	60.542	10.481
39	Gibson	10.809	26.554
40	Grant	12.939	36.402
41	Greene	6.228	7.405
42	Hamilton	143.345	203.755
43	Hancock	51.095	17.742
44	Harrison	10.835	52.835
45	Hendricks	29.968	48.113
46	Henry	20.683	20.879
47	Howard	14.673	37.365
48	Huntington	85.356	31.372
49	Jackson	58.323	30.909
50	Jasper	51.236	9.150
51	Jay	59.901	14.315

	Locale	P23_30	A23_30
52	Jefferson	13.943	16.948
53	Jennings	54.094	125.292
54	Johnson	129.427	96.048
55	Knox	7.050	10.367
56	Kosciusko	126.201	79.993
57	LaGrange	18.719	52.564
58	Lake	246.279	918.921
59	La Porte	165.312	61.062
60	Lawrence	37.380	39.952
61	Madison	93.453	44.142
62	Marion	1045.425	344.326
63	Marshall	90.791	172.109
64	Martin	.607	1.731
65	Miami	18.428	22.071
66	Monroe	42.820	80.144
67	Montgomery	56.640	44.474
68	Morgan	55.677	24.633
69	Newton	4.607	23.202
70	Noble	120.966	134.448
71	Ohio	.807	1.079
72	Orange	4.002	11.541
73	Owen	1.020	13.174
74	Parke	.681	10.925
75	Perry	3.686	9.539
76	Pike	4.452	2.439
77	Porter	139.158	45.835
78	Posey	94.702	176.395
79	Pulaski	12.952	2.525
80	Putnam	.749	65.896
81	Randolph	7.014	10.490
82	Ripley	19.381	10.069
83	Rush	3.684	6.402
84	St. Joseph	369.972	220.304
85	Scott	15.413	83.674
86	Shelby	34.560	101.233
87	Spencer	4.417	20.112
88	Starke	2.642	11.757
89	Steuben	100.388	50.356
90	Sullivan	1.242	12.761
91	Switzerland	.000	13.522
92	Tippecanoe	160.101	87.907
93	Tipton	8.675	2.864
94	Union	2.818	1.314
95	Vanderburgh	274.005	245.046
96	Vermillion	83.038	2.778
97	Vigo	98.227	99.932
98	Wabash	80.044	17.884
99	Warren	9.235	1.952
100	Warrick	23.932	14.644
101	Washington	47.959	17.430
102	Wayne	43.039	56.043

	Locale	P23_30	A23_30
103	Wells	50.507	48.278
104	White	65.637	22.412
105	Whitley	58.304	31.852
106	Iowa	2044.371	1441.422
107	Kansas	1391.117	2376.296
108	Kentucky_E	1601.918	1699.337
109	Kentucky_W	1067.945	1132.892
110	Louisiana	2850.286	5975.785
111	Maine	454.456	677.443
112	Maryland	2075.369	2303.709
113	Massachusetts	4600.112	3387.976
114	Michigan_E	4612.382	3102.193
115	Michigan_W	4612.382	3102.193
116	Minnesota	4755.723	3334.388
117	Mississippi	1452.116	2366.994
118	Missouri	4280.769	3134.415
119	Montana	131.912	547.291
120	Nebraska	856.111	679.243
121	Nevada	814.049	1164.664
122	New Hampshire	1268.624	934.136
123	New Jersey	6660.179	5490.347
124	New Mexico	303.468	719.758
125	New York	7788.962	6782.021
126	North Carolina	7489.704	9448.241
127	North Dakota	126.244	229.028
128	Ohio_N	4041.913	2955.615
129	Ohio_M	4041.913	2955.615
130	Ohio_S	4041.913	2955.615
131	Oklahoma	2288.260	2578.918
132	Oregon	2092.085	1805.757
133	Pennsylvania	8806.344	8100.620
134	Rhode Island	914.559	633.672
135	South Carolina	4851.517	4278.881
136	South Dakota	277.466	311.951
137	Tennessee	5896.878	4737.816
138	Texas	18576.582	23656.425
139	Utah	1511.653	1917.488
140	Vermont	302.181	271.694
141	Virginia	3237.702	4013.206
142	Washington	2567.802	3607.490
143	West Virginia	1053.339	576.184
144	Wisconsin	6633.188	3235.034
145	Wyoming	123.349	429.282

	Locale	P24_30	A24_30
1	Alabama	7112.700	5879.311
2	Arizona	1908.734	3445.193
3	Arkansas	3169.175	3436.361
4	California	44378.018	33302.282
5	Colorado	1625.711	2794.075
6	Connecticut	1228.884	3846.329
7	Delaware	2709.135	1788.206
8	DC	.000	.000
9	Florida	4270.567	9191.812
10	Georgia	4106.961	16965.167
11	Idaho	667.175	981.325
12	Illinois_N	10653.605	12107.819
13	Illinois_S	5326.803	6053.910
14	Adams	31.121	65.841
15	Allen	191.057	546.943
16	Bartholomew	.000	287.347
17	Benton	.000	3.474
18	Blackford	.000	3.114
19	Boone	.000	46.552
20	Brown	.000	.987
21	Carroll	.000	4.214
22	Cass	.000	13.330
23	Clark	316.922	239.389
24	Clay	.000	12.202
25	Clinton	.000	33.450
26	Crawford	.000	.000
27	Daviess	29.571	27.403
28	Dearborn	38.202	23.147
29	Decatur	.000	30.141
30	DeKalb	.000	79.031
31	Delaware	.000	82.496
32	Dubois	.000	16.639
33	Elkhart	30.907	422.650
34	Fayette	.000	38.162
35	Floyd	.000	58.817
36	Fountain	.000	.968
37	Franklin	191.018	56.238
38	Fulton	.000	24.113
39	Gibson	.000	13.079
40	Grant	.000	46.257
41	Greene	.000	1.420
42	Hamilton	43.913	95.421
43	Hancock	.000	23.946
44	Harrison	226.541	73.632
45	Hendricks	.000	36.235
46	Henry	.000	27.977
47	Howard	.000	22.685
48	Huntington	30.641	49.117
49	Jackson	.000	64.728
50	Jasper	.000	.701
51	Jay	23.656	18.235

	Locale	P24_30	A24_30
52	Jefferson	.000	61.363
53	Jennings	188.245	141.262
54	Johnson	.000	85.344
55	Knox	22.536	10.919
56	Kosciusko	28.402	115.125
57	LaGrange	.000	46.086
58	Lake	5611.632	1753.664
59	La Porte	25.684	161.611
60	Lawrence	145.870	64.310
61	Madison	.000	67.094
62	Marion	327.373	1350.139
63	Marshall	182.976	86.181
64	Martin	.000	.560
65	Miami	.000	17.698
66	Monroe	192.998	221.616
67	Montgomery	.000	30.354
68	Morgan	.000	77.273
69	Newton	.000	6.252
70	Noble	.000	85.959
71	Ohio	.000	.000
72	Orange	.000	.616
73	Owen	.000	10.701
74	Parke	.000	3.771
75	Perry	.000	17.742
76	Pike	.000	.000
77	Porter	.000	84.649
78	Posey	1062.501	486.290
79	Pulaski	.000	32.799
80	Putnam	.000	12.095
81	Randolph	23.631	37.992
82	Ripley	28.901	14.296
83	Rush	.000	30.718
84	St. Joseph	27.774	231.062
85	Scott	27.847	57.529
86	Shelby	.000	43.899
87	Spencer	.000	11.611
88	Starke	.000	27.869
89	Steuben	27.687	52.290
90	Sullivan	.000	1.037
91	Switzerland	.000	.000
92	Tippecanoe	34.699	464.999
93	Tipton	.000	11.645
94	Union	.000	4.991
95	Vanderburgh	.000	390.831
96	Vermillion	.000	149.251
97	Vigo	.000	134.206
98	Wabash	23.571	68.817
99	Warren	.000	12.033
100	Warrick	.000	15.718
101	Washington	.000	54.528
102	Wayne	.000	31.334

	Locale	P24_30	A24_30
103	Wells	.000	24.419
104	White	.000	20.756
105	Whitley	.000	10.813
106	Iowa	442.624	3357.762
107	Kansas	7589.904	4377.841
108	Kentucky_E	2157.616	2864.953
109	Kentucky_W	1438.411	1909.968
110	Louisiana	33448.335	12609.681
111	Maine	485.118	783.225
112	Maryland	3599.603	3726.529
113	Massachusetts	2904.401	6082.250
114	Michigan_E	2742.206	6212.660
115	Michigan_W	2742.206	6212.660
116	Minnesota	6196.379	6319.002
117	Mississippi	5249.414	3942.509
118	Missouri	4058.468	6369.468
119	Montana	2355.409	838.382
120	Nebraska	26.641	1142.600
121	Nevada	322.028	656.065
122	New Hampshire	513.888	1399.293
123	New Jersey	10282.207	12937.660
124	New Mexico	2243.436	854.883
125	New York	4102.855	12890.642
126	North Carolina	2625.266	15858.535
127	North Dakota	413.983	457.145
128	Ohio_N	4787.099	5327.102
129	Ohio_M	4787.099	5327.102
130	Ohio_S	4787.099	5327.102
131	Oklahoma	7225.871	4315.163
132	Oregon	2537.181	2655.218
133	Pennsylvania	18826.458	14178.855
134	Rhode Island	27.545	704.371
135	South Carolina	1205.292	9310.475
136	South Dakota	26.560	526.752
137	Tennessee	4363.641	9806.166
138	Texas	88162.306	46155.114
139	Utah	5988.561	3354.860
140	Vermont	175.709	368.848
141	Virginia	2336.132	5726.842
142	Washington	7465.483	4397.608
143	West Virginia	940.960	1750.380
144	Wisconsin	1200.549	8162.679
145	Wyoming	2217.645	780.593

	Locale	P25_30	A25_30
1	Alabama	30974.940	30974.940
2	Arizona	18759.537	18759.537
3	Arkansas	20194.873	20194.873
4	California	57407.081	57407.081
5	Colorado	6072.004	6072.004
6	Connecticut	1732.700	1732.700
7	Delaware	1537.762	1537.762
8	DC	.000	.000
9	Florida	30754.472	30754.472
10	Georgia	44236.378	44236.378
11	Idaho	14508.106	14508.106
12	Illinois_N	6974.277	6974.277
13	Illinois_S	3487.138	3487.138
14	Adams	763.812	763.812
15	Allen	246.853	246.853
16	Bartholomew	78.358	78.358
17	Benton	174.907	174.907
18	Blackford	69.870	69.870
19	Boone	.000	.000
20	Brown	30.301	30.301
21	Carroll	.000	.000
22	Cass	177.341	177.341
23	Clark	891.795	891.795
24	Clay	67.900	67.900
25	Clinton	39.715	39.715
26	Crawford	88.564	88.564
27	Daviess	283.505	283.505
28	Dearborn	16.278	16.278
29	Decatur	30.193	30.193
30	DeKalb	927.737	927.737
31	Delaware	71.670	71.670
32	Dubois	2123.563	2123.563
33	Elkhart	8401.986	8401.986
34	Fayette	.000	.000
35	Floyd	774.583	774.583
36	Fountain	11.006	11.006
37	Franklin	52.905	52.905
38	Fulton	296.485	296.485
39	Gibson	.000	.000
40	Grant	52.068	52.068
41	Greene	64.032	64.032
42	Hamilton	235.759	235.759
43	Hancock	49.668	49.668
44	Harrison	273.498	273.498
45	Hendricks	137.887	137.887
46	Henry	56.502	56.502
47	Howard	67.123	67.123
48	Huntington	110.975	110.975
49	Jackson	337.334	337.334
50	Jasper	83.461	83.461
51	Jay	60.477	60.477

	Locale	P25_30	A25_30
52	Jefferson	90.210	90.210
53	Jennings	93.579	93.579
54	Johnson	1882.158	1882.158
55	Knox	72.980	72.980
56	Kosciusko	377.580	377.580
57	LaGrange	2551.323	2551.323
58	Lake	262.479	262.479
59	La Porte	228.728	228.728
60	Lawrence	120.166	120.166
61	Madison	203.953	203.953
62	Marion	833.440	833.440
63	Marshall	836.830	836.830
64	Martin	9.668	9.668
65	Miami	130.063	130.063
66	Monroe	82.236	82.236
67	Montgomery	49.813	49.813
68	Morgan	280.416	280.416
69	Newton	.000	.000
70	Noble	74.816	74.816
71	Ohio	.000	.000
72	Orange	485.790	485.790
73	Owen	154.984	154.984
74	Parke	189.826	189.826
75	Perry	58.744	58.744
76	Pike	70.938	70.938
77	Porter	128.494	128.494
78	Posey	12.073	12.073
79	Pulaski	11.794	11.794
80	Putnam	71.577	71.577
81	Randolph	379.603	379.603
82	Ripley	150.236	150.236
83	Rush	58.698	58.698
84	St. Joseph	603.548	603.548
85	Scott	71.193	71.193
86	Shelby	.000	.000
87	Spencer	159.124	159.124
88	Starke	333.339	333.339
89	Steuben	57.807	57.807
90	Sullivan	104.887	104.887
91	Switzerland	.000	.000
92	Tippecanoe	75.404	75.404
93	Tipton	63.409	63.409
94	Union	11.442	11.442
95	Vanderburgh	300.448	300.448
96	Vermillion	.000	.000
97	Vigo	133.638	133.638
98	Wabash	175.760	175.760
99	Warren	71.208	71.208
100	Warrick	167.198	167.198
101	Washington	283.606	283.606
102	Wayne	56.330	56.330

	Locale	P25_30	A25_30
103	Wells	79.035	79.035
104	White	28.930	28.930
105	Whitley	229.714	229.714
106	Iowa	9284.563	9284.563
107	Kansas	3584.170	3584.170
108	Kentucky_E	8592.433	8592.433
109	Kentucky_W	5728.288	5728.288
110	Louisiana	11067.372	11067.372
111	Maine	9456.585	9456.585
112	Maryland	5614.434	5614.434
113	Massachusetts	3392.088	3392.088
114	Michigan_E	7900.080	7900.080
115	Michigan_W	7900.080	7900.080
116	Minnesota	20484.598	20484.598
117	Mississippi	21680.817	21680.817
118	Missouri	12588.345	12588.345
119	Montana	6659.581	6659.581
120	Nebraska	2876.511	2876.511
121	Nevada	2357.817	2357.817
122	New Hampshire	5293.582	5293.582
123	New Jersey	3191.430	3191.430
124	New Mexico	1895.831	1895.831
125	New York	10996.457	10996.457
126	North Carolina	55665.083	55665.083
127	North Dakota	996.896	996.896
128	Ohio_N	7594.491	7594.491
129	Ohio_M	7594.491	7594.491
130	Ohio_S	7594.491	7594.491
131	Oklahoma	3790.564	3790.564
132	Oregon	53276.315	53276.315
133	Pennsylvania	27358.807	27358.807
134	Rhode Island	598.590	598.590
135	South Carolina	15342.794	15342.794
136	South Dakota	1687.357	1687.357
137	Tennessee	26311.755	26311.755
138	Texas	50613.993	50613.993
139	Utah	3695.984	3695.984
140	Vermont	4151.486	4151.486
141	Virginia	30680.264	30680.264
142	Washington	33435.884	33435.884
143	West Virginia	7918.322	7918.322
144	Wisconsin	33649.758	33649.758
145	Wyoming	1185.688	1185.688

	Locale	P26_30	A26_30
1	Alabama	26317.227	24717.580
2	Arizona	15938.659	14370.636
3	Arkansas	17158.162	15748.523
4	California	48774.757	53602.187
5	Colorado	5158.955	4903.179
6	Connecticut	1472.153	1590.241
7	Delaware	1306.528	1815.603
8	DC	.000	.000
9	Florida	26129.911	23844.383
10	Georgia	37584.538	33788.617
11	Idaho	12326.517	10911.782
12	Illinois_N	5925.553	7826.428
13	Illinois_S	2962.776	3913.214
14	Adams	648.957	573.475
15	Allen	209.733	230.549
16	Bartholomew	66.575	58.034
17	Benton	148.606	129.541
18	Blackford	59.364	51.748
19	Boone	.000	.000
20	Brown	25.744	22.442
21	Carroll	.000	.000
22	Cass	150.675	131.344
23	Clark	757.696	739.651
24	Clay	57.690	50.289
25	Clinton	33.743	29.414
26	Crawford	75.247	65.593
27	Daviess	240.875	217.359
28	Dearborn	13.830	21.598
29	Decatur	25.653	22.362
30	DeKalb	788.233	687.109
31	Delaware	60.893	53.081
32	Dubois	1804.242	1572.774
33	Elkhart	7138.576	6230.480
34	Fayette	.000	.000
35	Floyd	658.109	573.679
36	Fountain	9.351	8.152
37	Franklin	44.950	86.896
38	Fulton	251.902	219.585
39	Gibson	.000	.000
40	Grant	44.238	38.563
41	Greene	54.403	47.424
42	Hamilton	200.308	185.579
43	Hancock	42.200	36.786
44	Harrison	232.372	259.146
45	Hendricks	117.153	102.123
46	Henry	48.006	41.847
47	Howard	57.030	49.713
48	Huntington	94.288	89.845
49	Jackson	286.609	249.840
50	Jasper	70.911	61.813
51	Jay	51.383	50.700

	Locale	P26_30	A26_30
52	Jefferson	76.645	66.812
53	Jennings	79.508	116.328
54	Johnson	1599.137	1393.982
55	Knox	62.006	59.680
56	Kosciusko	320.803	286.741
57	LaGrange	2167.680	1889.586
58	Lake	223.010	1596.080
59	La Porte	194.334	175.818
60	Lawrence	102.097	125.435
61	Madison	173.285	151.054
62	Marion	708.115	699.042
63	Marshall	710.996	665.485
64	Martin	8.214	7.160
65	Miami	110.505	96.329
66	Monroe	69.870	109.114
67	Montgomery	42.323	36.893
68	Morgan	238.250	207.685
69	Newton	.000	.000
70	Noble	63.566	55.411
71	Ohio	.000	.000
72	Orange	412.742	359.791
73	Owen	131.679	114.786
74	Parke	161.282	140.591
75	Perry	49.910	43.507
76	Pike	60.271	52.539
77	Porter	109.172	95.166
78	Posey	10.257	274.334
79	Pulaski	10.021	8.735
80	Putnam	60.814	53.012
81	Randolph	322.522	287.048
82	Ripley	127.645	118.488
83	Rush	49.872	43.474
84	St. Joseph	512.792	453.943
85	Scott	60.487	59.683
86	Shelby	.000	.000
87	Spencer	135.196	117.852
88	Starke	283.215	246.881
89	Steuben	49.114	49.729
90	Sullivan	89.115	77.683
91	Switzerland	.000	.000
92	Tippecanoe	64.065	64.513
93	Tipton	53.874	46.963
94	Union	9.721	8.474
95	Vanderburgh	255.270	222.521
96	Vermillion	.000	.000
97	Vigo	113.543	98.976
98	Wabash	149.331	136.061
99	Warren	60.500	52.738
100	Warrick	142.056	123.832
101	Washington	240.960	210.047
102	Wayne	47.859	41.719

	Locale	P26_30	A26_30
103	Wells	67.151	58.536
104	White	24.580	21.427
105	Whitley	195.172	170.133
106	Iowa	7888.440	6986.982
107	Kansas	3045.217	4550.359
108	Kentucky_E	7300.385	6902.743
109	Kentucky_W	4866.924	4601.828
110	Louisiana	9403.167	16551.593
111	Maine	8034.595	7125.001
112	Maryland	4770.190	5057.330
113	Massachusetts	2882.018	3237.746
114	Michigan_E	6712.142	6535.985
115	Michigan_W	6712.142	6535.985
116	Minnesota	17404.322	16719.241
117	Mississippi	18420.665	17368.662
118	Missouri	10695.431	10337.032
119	Montana	5658.177	5520.620
120	Nebraska	2443.969	2137.084
121	Nevada	2003.271	1826.706
122	New Hampshire	4497.584	4048.944
123	New Jersey	2711.533	4931.971
124	New Mexico	1610.754	1964.477
125	New York	9342.916	9169.119
126	North Carolina	47294.704	41882.955
127	North Dakota	846.992	841.736
128	Ohio_N	6452.505	6820.433
129	Ohio_M	6452.505	6820.433
130	Ohio_S	6452.505	6820.433
131	Oklahoma	3220.576	4612.292
132	Oregon	45265.136	40091.761
133	Pennsylvania	23244.853	24965.242
134	Rhode Island	508.580	450.214
135	South Carolina	13035.693	11664.389
136	South Dakota	1433.628	1256.341
137	Tennessee	22355.247	20577.223
138	Texas	43003.148	59507.520
139	Utah	3140.217	4233.186
140	Vermont	3527.226	3118.602
141	Virginia	26066.862	23306.236
142	Washington	28408.118	26628.346
143	West Virginia	6727.641	6099.578
144	Wisconsin	28589.832	25221.884
145	Wyoming	1007.395	1432.082

	Locale	P27_30	A27_30
1	Alabama	8772.156	7559.497
2	Arizona	2974.282	2952.751
3	Arkansas	6684.315	8008.424
4	California	21387.510	28000.572
5	Colorado	1800.279	2765.090
6	Connecticut	2732.878	2134.653
7	Delaware	1051.340	1569.194
8	DC	.000	.000
9	Florida	9303.432	9671.250
10	Georgia	17780.225	15499.942
11	Idaho	1255.569	2445.521
12	Illinois_N	9065.245	9509.454
13	Illinois_S	4542.622	4754.727
14	Adams	1.326	33.694
15	Allen	430.764	374.911
16	Bartholomew	341.849	285.346
17	Benton	67.827	33.867
18	Blackford	148.328	77.700
19	Boone	7.002	4.718
20	Brown	.000	.760
21	Carroll	.000	143.602
22	Cass	.000	125.046
23	Clark	44.608	67.533
24	Clay	.000	.766
25	Clinton	28.002	184.160
26	Crawford	.000	.000
27	Daviess	1.260	89.077
28	Dearborn	1.627	4.228
29	Decatur	.000	29.085
30	DeKalb	94.251	52.701
31	Delaware	211.692	115.807
32	Dubois	102.698	118.125
33	Elkhart	384.336	251.629
34	Fayette	.000	.000
35	Floyd	88.794	108.548
36	Fountain	.000	4.470
37	Franklin	8.136	16.550
38	Fulton	26.230	24.925
39	Gibson	.000	33.124
40	Grant	139.994	85.467
41	Greene	.000	27.090
42	Hamilton	1.870	20.439
43	Hancock	124.509	63.369
44	Harrison	9.649	97.493
45	Hendricks	.000	71.714
46	Henry	21.911	14.765
47	Howard	.000	12.041
48	Huntington	89.907	79.889
49	Jackson	211.352	108.326
50	Jasper	.000	18.422
51	Jay	24.460	43.940

	Locale	P27_30	A27_30
52	Jefferson	.000	1.673
53	Jennings	39.123	30.936
54	Johnson	125.103	63.339
55	Knox	23.303	21.581
56	Kosciusko	5.903	79.706
57	LaGrange	.000	16.352
58	Lake	415.112	631.782
59	La Porte	207.775	146.859
60	Lawrence	6.213	16.144
61	Madison	77.324	96.454
62	Marion	1289.475	969.879
63	Marshall	241.102	169.026
64	Martin	.000	3.927
65	Miami	140.104	73.868
66	Monroe	101.234	71.236
67	Montgomery	80.488	70.295
68	Morgan	.000	1.037
69	Newton	25.573	13.513
70	Noble	84.622	105.557
71	Ohio	.000	.000
72	Orange	.000	4.317
73	Owen	.000	.846
74	Parke	.000	12.850
75	Perry	.000	.663
76	Pike	.000	.000
77	Porter	.000	25.933
78	Posey	45.257	91.852
79	Pulaski	4.574	7.792
80	Putnam	.000	.808
81	Randolph	1.007	7.182
82	Ripley	84.801	44.926
83	Rush	22.763	13.087
84	St. Joseph	259.557	186.876
85	Scott	1.186	32.398
86	Shelby	4.292	15.255
87	Spencer	.000	4.280
88	Starke	24.012	11.990
89	Steuben	28.629	36.095
90	Sullivan	.000	.000
91	Switzerland	6.114	3.053
92	Tippecanoe	35.879	84.469
93	Tipton	24.589	24.797
94	Union	.000	.000
95	Vanderburgh	301.389	444.879
96	Vermillion	65.787	33.373
97	Vigo	231.656	134.843
98	Wabash	147.057	78.934
99	Warren	.000	.803
100	Warrick	5.146	2.569
101	Washington	.000	5.097
102	Wayne	86.648	88.067

	Locale	P27_30	A27_30
103	Wells	30.649	60.957
104	White	25.890	16.091
105	Whitley	89.081	45.368
106	Iowa	2361.357	4583.541
107	Kansas	1863.912	3818.579
108	Kentucky_E	3022.963	2634.567
109	Kentucky_W	2015.308	1756.378
110	Louisiana	6424.144	6590.655
111	Maine	5413.339	3238.756
112	Maryland	3919.032	3807.362
113	Massachusetts	8913.006	6348.686
114	Michigan_E	4354.253	7210.160
115	Michigan_W	4354.253	3605.080
116	Minnesota	8511.665	8594.921
117	Mississippi	4153.429	4489.286
118	Missouri	6378.619	6611.882
119	Montana	459.811	556.897
120	Nebraska	738.043	3005.915
121	Nevada	547.600	764.925
122	New Hampshire	2041.061	1262.953
123	New Jersey	8814.852	7533.409
124	New Mexico	361.162	655.755
125	New York	11122.105	9421.213
126	North Carolina	13398.404	12619.637
127	North Dakota	41.087	414.858
128	Ohio_N	4419.842	3713.360
129	Ohio_M	4419.842	3713.360
130	Ohio_S	4419.842	3713.360
131	Oklahoma	2113.304	2685.820
132	Oregon	4755.337	4542.494
133	Pennsylvania	14726.193	14244.222
134	Rhode Island	900.557	675.214
135	South Carolina	7359.144	5208.242
136	South Dakota	289.902	763.112
137	Tennessee	9382.151	8349.281
138	Texas	17712.554	24148.309
139	Utah	2016.472	2725.442
140	Vermont	854.297	756.060
141	Virginia	8811.853	8027.205
142	Washington	9131.655	8565.264
143	West Virginia	285.307	560.857
144	Wisconsin	19870.136	14766.278
145	Wyoming	98.843	241.050

	Locale	P28_30	A28_30
1	Alabama	3189.271	2523.942
2	Arizona	3572.065	4666.446
3	Arkansas	3372.372	2723.102
4	California	25745.578	27840.313
5	Colorado	2758.763	3002.913
6	Connecticut	1238.264	1484.656
7	Delaware	699.675	622.609
8	DC	.000	.000
9	Florida	6967.342	8764.024
10	Georgia	11204.008	5256.489
11	Idaho	1895.250	1838.759
12	Illinois_N	4586.557	4749.430
13	Illinois_S	2293.279	2374.715
14	Adams	44.116	46.659
15	Allen	249.191	254.068
16	Bartholomew	98.946	90.832
17	Benton	.000	.933
18	Blackford	2.433	3.238
19	Boone	17.728	29.026
20	Brown	.771	2.648
21	Carroll	96.031	72.644
22	Cass	93.764	76.578
23	Clark	26.885	30.510
24	Clay	.777	3.965
25	Clinton	134.937	111.696
26	Crawford	.000	1.608
27	Daviess	57.950	46.184
28	Dearborn	1.118	9.555
29	Decatur	19.450	17.329
30	DeKalb	13.170	19.728
31	Delaware	8.027	20.712
32	Dubois	67.457	62.990
33	Elkhart	169.569	133.921
34	Fayette	.000	2.871
35	Floyd	61.567	63.600
36	Fountain	4.536	6.038
37	Franklin	.614	3.500
38	Fulton	8.174	8.672
39	Gibson	28.934	28.026
40	Grant	.000	.000
41	Greene	20.498	19.101
42	Hamilton	47.291	67.203
43	Hancock	1.218	11.960
44	Harrison	52.799	44.493
45	Hendricks	59.275	72.285
46	Henry	8.511	8.608
47	Howard	9.807	18.525
48	Huntington	69.922	75.029
49	Jackson	2.819	6.599
50	Jasper	17.276	18.731
51	Jay	20.258	17.190

	Locale	P28_30	A28_30
52	Jefferson	2.141	5.208
53	Jennings	41.474	4.081
54	Johnson	26.928	52.197
55	Knox	7.559	10.766
56	Kosciusko	60.188	50.495
57	LaGrange	13.964	15.946
58	Lake	66.558	105.531
59	La Porte	30.542	35.743
60	Lawrence	5.126	9.191
61	Madison	40.835	45.779
62	Marion	295.438	320.602
63	Marshall	31.871	25.150
64	Martin	2.626	3.067
65	Miami	3.639	6.144
66	Monroe	45.362	60.357
67	Montgomery	20.133	19.628
68	Morgan	64.748	83.678
69	Newton	5.001	7.235
70	Noble	62.138	39.272
71	Ohio	.000	.716
72	Orange	2.887	4.626
73	Owen	6.770	3.470
74	Parke	8.593	8.279
75	Perry	5.532	2.733
76	Pike	.000	1.620
77	Porter	21.418	35.586
78	Posey	9.272	5.920
79	Pulaski	3.684	4.367
80	Putnam	5.428	10.962
81	Randolph	4.924	7.246
82	Ripley	2.287	6.005
83	Rush	2.190	3.033
84	St. Joseph	79.747	92.911
85	Scott	37.320	17.886
86	Shelby	8.768	11.866
87	Spencer	2.862	4.513
88	Starke	.000	2.811
89	Steuben	20.971	16.127
90	Sullivan	.000	2.768
91	Switzerland	.000	1.346
92	Tippecanoe	91.704	102.675
93	Tipton	8.372	8.016
94	Union	.000	.873
95	Vanderburgh	235.675	165.998
96	Vermillion	.351	2.102
97	Vigo	60.569	75.192
98	Wabash	15.975	20.258
99	Warren	.537	1.360
100	Warrick	1.098	8.412
101	Washington	3.408	6.287
102	Wayne	50.382	52.751

	Locale	P28_30	A28_30
103	Wells	31.928	26.437
104	White	7.595	9.856
105	Whitley	5.911	11.031
106	Iowa	2768.218	2460.523
107	Kansas	1912.292	1726.518
108	Kentucky_E	1122.391	1023.169
109	Kentucky_W	748.260	682.112
110	Louisiana	1081.482	1290.177
111	Maine	686.125	613.029
112	Maryland	1976.372	2521.127
113	Massachusetts	4357.500	4779.217
114	Michigan_E	1322.473	1637.183
115	Michigan_W	1322.473	1637.183
116	Minnesota	4770.275	4864.785
117	Mississippi	1947.432	1530.208
118	Missouri	2804.889	2769.757
119	Montana	150.154	227.776
120	Nebraska	1965.302	1687.179
121	Nevada	563.973	890.761
122	New Hampshire	1114.562	1239.429
123	New Jersey	3214.498	3525.675
124	New Mexico	555.987	776.744
125	New York	5405.480	6498.665
126	North Carolina	8824.398	6432.399
127	North Dakota	300.406	292.768
128	Ohio_N	1251.023	1400.539
129	Ohio_M	1251.023	1400.539
130	Ohio_S	1251.023	1400.539
131	Oklahoma	1304.182	1449.992
132	Oregon	2894.993	3151.663
133	Pennsylvania	6070.147	6043.377
134	Rhode Island	448.238	453.319
135	South Carolina	2987.997	1925.501
136	South Dakota	831.099	792.673
137	Tennessee	3357.445	3005.663
138	Texas	13473.326	14951.408
139	Utah	1686.224	1769.048
140	Vermont	512.249	565.232
141	Virginia	3885.196	4053.206
142	Washington	4348.836	4710.475
143	West Virginia	273.690	405.430
144	Wisconsin	4079.266	3798.854
145	Wyoming	55.841	102.800

	Locale	P29_30	A29_30
1	Alabama	1994.154	1694.766
2	Arizona	2266.166	3501.237
3	Arkansas	1475.431	1116.009
4	California	14354.101	15768.885
5	Colorado	1537.702	1915.598
6	Connecticut	1297.875	1284.220
7	Delaware	413.370	343.790
8	DC	.000	.000
9	Florida	7555.896	9648.959
10	Georgia	5107.194	3993.772
11	Idaho	676.239	661.988
12	Illinois_N	3702.284	3110.539
13	Illinois_S	1851.142	1555.270
14	Adams	6.999	14.482
15	Allen	190.655	149.546
16	Bartholomew	47.788	31.820
17	Benton	11.662	2.796
18	Blackford	18.806	4.379
19	Boone	13.316	27.278
20	Brown	.307	5.926
21	Carroll	5.702	7.532
22	Cass	5.283	14.731
23	Clark	18.356	43.641
24	Clay	2.135	9.855
25	Clinton	8.097	13.281
26	Crawford	.000	4.819
27	Daviess	5.410	11.580
28	Dearborn	4.140	25.721
29	Decatur	9.813	9.365
30	DeKalb	15.940	18.680
31	Delaware	40.366	46.328
32	Dubois	25.744	16.501
33	Elkhart	79.846	82.208
34	Fayette	4.167	8.606
35	Floyd	26.074	32.826
36	Fountain	3.100	6.257
37	Franklin	2.226	9.147
38	Fulton	6.783	7.776
39	Gibson	3.248	12.277
40	Grant	22.459	22.689
41	Greene	2.335	12.460
42	Hamilton	78.906	146.154
43	Hancock	33.457	32.669
44	Harrison	3.740	17.785
45	Hendricks	17.598	79.427
46	Henry	11.023	15.821
47	Howard	6.241	31.887
48	Huntington	19.055	16.458
49	Jackson	34.005	15.685
50	Jasper	4.201	12.196
51	Jay	7.911	7.181

	Locale	P29_30	A29_30
52	Jefferson	1.791	13.162
53	Jennings	5.923	12.231
54	Johnson	25.443	70.149
55	Knox	13.367	13.469
56	Kosciusko	8.164	29.861
57	LaGrange	9.835	17.328
58	Lake	79.183	177.136
59	La Porte	47.039	39.979
60	Lawrence	2.040	16.405
61	Madison	22.207	51.627
62	Marion	509.803	337.648
63	Marshall	34.885	19.361
64	Martin	1.613	3.446
65	Miami	27.823	11.915
66	Monroe	49.053	56.258
67	Montgomery	13.061	14.762
68	Morgan	2.892	34.195
69	Newton	5.982	5.168
70	Noble	18.062	19.043
71	Ohio	.000	2.147
72	Orange	1.657	7.547
73	Owen	.342	9.161
74	Parke	1.780	6.005
75	Perry	1.178	6.435
76	Pike	1.358	4.856
77	Porter	26.421	58.110
78	Posey	7.066	10.568
79	Pulaski	8.795	5.027
80	Putnam	1.729	14.928
81	Randolph	1.625	9.191
82	Ripley	15.716	10.852
83	Rush	4.843	5.786
84	St. Joseph	118.109	109.963
85	Scott	.324	9.520
86	Shelby	4.773	16.373
87	Spencer	6.773	7.262
88	Starke	4.092	8.427
89	Steuben	3.678	13.203
90	Sullivan	4.673	8.298
91	Switzerland	1.150	4.034
92	Tippecanoe	29.234	72.039
93	Tipton	7.052	5.701
94	Union	1.877	2.616
95	Vanderburgh	89.444	65.621
96	Vermillion	9.774	5.531
97	Vigo	49.906	36.972
98	Wabash	19.474	12.214
99	Warren	1.947	2.901
100	Warrick	7.355	25.214
101	Washington	.343	11.385
102	Wayne	21.225	22.570

	Locale	P29_30	A29_30
103	Wells	58.215	11.357
104	White	12.598	9.293
105	Whitley	13.809	13.549
106	Iowa	1199.419	1033.545
107	Kansas	1034.442	1020.223
108	Kentucky_E	981.838	946.172
109	Kentucky_W	654.559	630.782
110	Louisiana	1629.346	1681.908
111	Maine	980.263	491.634
112	Maryland	1864.251	2420.564
113	Massachusetts	2968.325	2434.148
114	Michigan_E	1584.556	1868.225
115	Michigan_W	1584.556	1868.225
116	Minnesota	2807.760	2161.540
117	Mississippi	1079.010	1068.678
118	Missouri	2592.560	2229.896
119	Montana	282.283	364.839
120	Nebraska	687.266	635.012
121	Nevada	773.991	1338.237
122	New Hampshire	573.414	560.985
123	New Jersey	5488.526	3389.423
124	New Mexico	340.517	725.233
125	New York	7469.519	6778.772
126	North Carolina	4438.665	4117.554
127	North Dakota	243.302	217.237
128	Ohio_N	1457.854	1353.864
129	Ohio_M	1457.854	1353.864
130	Ohio_S	1457.854	1353.864
131	Oklahoma	1041.535	1354.083
132	Oregon	1899.447	1652.645
133	Pennsylvania	4483.434	4500.343
134	Rhode Island	322.056	399.200
135	South Carolina	1778.363	1753.399
136	South Dakota	278.413	279.376
137	Tennessee	3105.949	2525.466
138	Texas	9016.883	11165.778
139	Utah	986.776	1171.175
140	Vermont	303.705	247.242
141	Virginia	2741.136	3355.546
142	Washington	3229.477	2939.543
143	West Virginia	255.646	612.491
144	Wisconsin	3919.583	2137.806
145	Wyoming	73.343	183.511

	Locale	P30_30	A30_30
1	Alabama	4774.683	3931.264
2	Arizona	647.390	1373.622
3	Arkansas	915.743	1008.239
4	California	9692.282	11821.894
5	Colorado	744.970	1075.292
6	Connecticut	740.913	868.196
7	Delaware	328.210	360.895
8	DC	.000	.000
9	Florida	2970.682	4704.394
10	Georgia	22581.486	17968.324
11	Idaho	155.245	292.244
12	Illinois_N	1263.429	1875.243
13	Illinois_S	631.714	937.621
14	Adams	1.468	5.036
15	Allen	91.299	111.808
16	Bartholomew	2.518	9.769
17	Benton	.000	.680
18	Blackford	.000	1.065
19	Boone	.000	6.635
20	Brown	.000	1.441
21	Carroll	.000	1.832
22	Cass	2.035	5.224
23	Clark	30.417	38.497
24	Clay	.000	2.397
25	Clinton	.000	3.230
26	Crawford	.000	1.172
27	Daviess	1.395	4.254
28	Dearborn	1.802	8.114
29	Decatur	.000	2.278
30	DeKalb	.000	4.543
31	Delaware	2.303	13.125
32	Dubois	2.386	5.937
33	Elkhart	148.222	139.632
34	Fayette	.000	2.093
35	Floyd	.000	7.984
36	Fountain	.000	1.522
37	Franklin	9.011	11.514
38	Fulton	.000	1.891
39	Gibson	.000	2.986
40	Grant	10.038	13.612
41	Greene	2.057	4.690
42	Hamilton	67.022	89.763
43	Hancock	.000	7.946
44	Harrison	10.687	15.343
45	Hendricks	4.431	22.891
46	Henry	10.893	12.631
47	Howard	.000	7.756
48	Huntington	3.963	7.523
49	Jackson	2.212	5.599
50	Jasper	.000	2.966
51	Jay	1.116	2.897

	Locale	P30_30	A30_30
52	Jefferson	2.382	5.122
53	Jennings	105.531	90.061
54	Johnson	3.554	19.927
55	Knox	1.063	4.372
56	Kosciusko	17.917	21.822
57	LaGrange	2.616	6.324
58	Lake	277.539	326.311
59	La Porte	9.714	16.809
60	Lawrence	8.879	12.694
61	Madison	5.503	16.817
62	Marion	114.497	176.819
63	Marshall	23.663	25.727
64	Martin	.000	.838
65	Miami	1.857	4.396
66	Monroe	24.959	35.853
67	Montgomery	.000	3.590
68	Morgan	2.954	10.699
69	Newton	.000	1.257
70	Noble	42.070	38.554
71	Ohio	.000	.522
72	Orange	.000	1.836
73	Owen	14.458	13.886
74	Parke	.000	1.461
75	Perry	11.325	10.697
76	Pike	.000	1.181
77	Porter	9.243	20.478
78	Posey	64.089	65.501
79	Pulaski	.000	1.223
80	Putnam	.000	3.631
81	Randolph	6.996	7.189
82	Ripley	1.363	4.045
83	Rush	1.886	2.928
84	St. Joseph	42.390	61.035
85	Scott	41.346	35.949
86	Shelby	.000	3.982
87	Spencer	.000	1.766
88	Starke	.000	2.050
89	Steuben	14.953	15.561
90	Sullivan	.000	2.018
91	Switzerland	.000	.981
92	Tippecanoe	18.740	32.999
93	Tipton	.000	1.387
94	Union	.000	.636
95	Vanderburgh	90.968	89.117
96	Vermillion	.000	1.345
97	Vigo	2.202	10.768
98	Wabash	3.048	5.678
99	Warren	.000	.706
100	Warrick	2.558	8.195
101	Washington	.000	2.769
102	Wayne	.000	5.489

	Locale	P30_30	A30_30
103	Wells	3.822	5.639
104	White	21.102	16.251
105	Whitley	.000	3.295
106	Iowa	270.863	472.378
107	Kansas	636.191	839.245
108	Kentucky_E	828.716	903.107
109	Kentucky_W	552.477	602.072
110	Louisiana	1861.624	2262.294
111	Maine	942.542	801.581
112	Maryland	593.804	1068.877
113	Massachusetts	2661.701	2541.272
114	Michigan_E	468.508	855.436
115	Michigan_W	468.508	855.436
116	Minnesota	826.847	1242.138
117	Mississippi	1516.249	1489.705
118	Missouri	885.861	1287.158
119	Montana	148.122	231.969
120	Nebraska	131.553	254.193
121	Nevada	160.271	457.772
122	New Hampshire	721.359	665.333
123	New Jersey	2797.888	3011.194
124	New Mexico	127.519	301.790
125	New York	3471.934	4275.261
126	North Carolina	24559.999	18051.900
127	North Dakota	68.559	111.563
128	Ohio_N	651.298	884.542
129	Ohio_M	651.298	884.542
130	Ohio_S	651.298	884.542
131	Oklahoma	722.154	980.426
132	Oregon	468.454	800.586
133	Pennsylvania	4021.397	4299.858
134	Rhode Island	945.214	751.381
135	South Carolina	11549.495	8462.311
136	South Dakota	247.520	254.632
137	Tennessee	3288.639	3059.797
138	Texas	8049.831	9982.735
139	Utah	659.220	876.598
140	Vermont	53.545	102.748
141	Virginia	4181.499	3740.361
142	Washington	996.690	1579.500
143	West Virginia	105.907	238.422
144	Wisconsin	877.024	1193.507
145	Wyoming	118.792	163.733

	Locale	P31_30	A31_30
1	Alabama	28714.317	28802.841
2	Arizona	36887.682	36664.313
3	Arkansas	32747.258	33056.158
4	California	210438.940	210235.237
5	Colorado	25512.316	25486.634
6	Connecticut	14565.783	14502.610
7	Delaware	7497.477	7545.725
8	DC	.000	.000
9	Florida	107056.533	106538.725
10	Georgia	67126.922	67325.765
11	Idaho	14869.177	14969.910
12	Illinois_N	49035.550	49131.634
13	Illinois_S	24517.775	24565.817
14	Adams	285.086	286.562
15	Allen	2044.841	2043.799
16	Bartholomew	866.046	873.629
17	Benton	23.858	23.578
18	Blackford	56.228	56.132
19	Boone	239.107	236.492
20	Brown	54.507	53.985
21	Carroll	808.871	821.602
22	Cass	774.093	784.361
23	Clark	507.558	505.639
24	Clay	88.071	87.156
25	Clinton	995.734	1010.385
26	Crawford	41.119	40.637
27	Daviess	548.145	555.123
28	Dearborn	225.197	222.727
29	Decatur	230.724	232.518
30	DeKalb	188.648	187.309
31	Delaware	447.740	444.054
32	Dubois	487.424	492.050
33	Elkhart	1001.490	998.697
34	Fayette	73.435	72.574
35	Floyd	613.067	615.812
36	Fountain	76.568	76.362
37	Franklin	82.815	81.986
38	Fulton	127.684	128.017
39	Gibson	276.521	278.403
40	Grant	274.324	273.515
41	Greene	246.792	248.089
42	Hamilton	1334.518	1321.476
43	Hancock	284.999	281.843
44	Harrison	561.157	566.791
45	Hendricks	1049.619	1048.406
46	Henry	154.833	153.610
47	Howard	334.536	332.476
48	Huntington	312.286	313.751
49	Jackson	148.346	147.039
50	Jasper	199.592	200.102
51	Jay	218.356	220.482

	Locale	P31_30	A31_30
52	Jefferson	120.993	119.834
53	Jennings	104.374	103.150
54	Johnson	603.130	596.193
55	Knox	159.424	158.882
56	Kosciusko	643.894	647.953
57	LaGrange	232.647	232.449
58	Lake	1950.419	1940.642
59	La Porte	556.641	556.543
60	Lawrence	161.802	160.555
61	Madison	740.488	740.753
62	Marion	4468.967	4463.935
63	Marshall	359.958	361.548
64	Martin	49.768	49.792
65	Miami	121.963	121.138
66	Monroe	526.729	521.945
67	Montgomery	282.077	283.427
68	Morgan	297.177	293.853
69	Newton	47.961	47.514
70	Noble	490.750	494.789
71	Ohio	18.321	18.106
72	Orange	86.789	86.439
73	Owen	82.562	81.725
74	Parke	117.869	118.474
75	Perry	58.351	57.769
76	Pike	41.436	40.950
77	Porter	630.332	626.953
78	Posey	115.601	115.004
79	Pulaski	71.458	71.473
80	Putnam	131.573	130.156
81	Randolph	105.638	105.212
82	Ripley	96.924	95.917
83	Rush	58.299	57.882
84	St. Joseph	1226.610	1220.827
85	Scott	237.409	239.285
86	Shelby	207.697	207.290
87	Spencer	84.164	83.839
88	Starke	71.907	71.064
89	Steuben	217.015	217.584
90	Sullivan	70.807	69.977
91	Switzerland	34.425	34.021
92	Tippecanoe	948.927	947.771
93	Tipton	113.563	114.168
94	Union	22.324	22.062
95	Vanderburgh	2086.440	2107.517
96	Vermillion	49.916	49.412
97	Vigo	414.914	413.015
98	Wabash	125.374	124.535
99	Warren	28.924	28.709
100	Warrick	215.161	212.638
101	Washington	123.579	122.918
102	Wayne	424.907	426.855

	Locale	P31_30	A31_30
103	Wells	333.632	336.782
104	White	95.699	95.066
105	Whitley	120.222	118.949
106	Iowa	26333.403	26547.149
107	Kansas	21296.579	21422.505
108	Kentucky_E	13230.572	13229.282
109	Kentucky_W	8820.382	8819.522
110	Louisiana	21389.440	21348.591
111	Maine	6821.230	6819.592
112	Maryland	29120.332	29031.429
113	Massachusetts	29702.336	29620.515
114	Michigan_E	22500.668	22432.508
115	Michigan_W	22500.668	22432.508
116	Minnesota	39028.454	39184.923
117	Mississippi	19995.231	20085.254
118	Missouri	35523.226	35598.815
119	Montana	4070.721	4051.555
120	Nebraska	19085.756	19269.715
121	Nevada	13866.944	13777.364
122	New Hampshire	5889.959	5853.802
123	New Jersey	41934.116	41830.600
124	New Mexico	7949.226	7908.544
125	New York	76612.054	76273.639
126	North Carolina	65058.195	65188.062
127	North Dakota	3768.472	3781.410
128	Ohio_N	17860.944	17839.713
129	Ohio_M	17860.944	17839.713
130	Ohio_S	17860.944	17839.713
131	Oklahoma	17740.597	17717.130
132	Oregon	24547.698	24571.492
133	Pennsylvania	68222.835	68312.557
134	Rhode Island	4567.384	4548.464
135	South Carolina	22536.471	22498.193
136	South Dakota	5581.966	5611.924
137	Tennessee	39182.119	39248.719
138	Texas	146948.984	146767.429
139	Utah	17024.506	17034.638
140	Vermont	3763.125	3768.327
141	Virginia	46708.644	46700.215
142	Washington	43509.883	43549.437
143	West Virginia	7100.533	7073.185
144	Wisconsin	42987.221	43221.422
145	Wyoming	1863.492	1850.519

	Locale	P32_30	A32_30
1	Alabama	25837.337	19201.171
2	Arizona	24167.692	15215.064
3	Arkansas	12629.949	28212.225
4	California	72870.091	111322.861
5	Colorado	5635.999	12212.894
6	Connecticut	14825.164	9738.753
7	Delaware	2251.269	5986.773
8	DC	.000	.000
9	Florida	20413.646	35625.688
10	Georgia	21394.000	45159.877
11	Idaho	790.747	10722.273
12	Illinois_N	30514.998	29953.204
13	Illinois_S	15257.499	14976.602
14	Adams	692.461	483.492
15	Allen	4358.455	1972.386
16	Bartholomew	1484.560	1124.380
17	Benton	47.111	.992
18	Blackford	9.146	26.604
19	Boone	94.327	62.163
20	Brown	1.910	5.555
21	Carroll	12.377	846.766
22	Cass	550.017	1051.868
23	Clark	144.256	160.349
24	Clay	345.568	201.037
25	Clinton	111.610	1060.022
26	Crawford	.000	.000
27	Daviess	16.939	516.507
28	Dearborn	.000	6.442
29	Decatur	289.790	333.934
30	DeKalb	2788.064	197.423
31	Delaware	1318.294	449.731
32	Dubois	368.516	605.752
33	Elkhart	6087.954	3189.973
34	Fayette	659.220	358.941
35	Floyd	128.801	444.751
36	Fountain	765.540	108.063
37	Franklin	86.563	55.857
38	Fulton	331.626	75.864
39	Gibson	38.859	216.321
40	Grant	598.170	372.824
41	Greene	152.317	164.733
42	Hamilton	953.979	278.064
43	Hancock	449.909	261.600
44	Harrison	205.322	581.349
45	Hendricks	393.698	471.270
46	Henry	547.838	185.924
47	Howard	3966.762	2013.478
48	Huntington	641.626	470.540
49	Jackson	908.824	295.580
50	Jasper	36.020	128.713
51	Jay	64.319	214.624

	Locale	P32_30	A32_30
52	Jefferson	356.745	212.398
53	Jennings	231.351	99.512
54	Johnson	816.534	237.104
55	Knox	274.314	51.116
56	Kosciusko	1978.907	657.544
57	LaGrange	301.015	265.174
58	Lake	17929.531	713.132
59	La Porte	1454.005	324.434
60	Lawrence	1681.240	204.525
61	Madison	1538.481	1119.275
62	Marion	6330.638	3592.901
63	Marshall	803.074	468.749
64	Martin	128.117	22.957
65	Miami	9.837	28.614
66	Monroe	40.815	76.419
67	Montgomery	951.688	338.224
68	Morgan	115.251	32.679
69	Newton	178.380	23.440
70	Noble	1345.710	743.609
71	Ohio	.000	.000
72	Orange	.000	25.241
73	Owen	.000	4.946
74	Parke	.000	75.123
75	Perry	278.017	3.875
76	Pike	53.717	.000
77	Porter	7344.561	152.792
78	Posey	.000	28.667
79	Pulaski	158.297	33.376
80	Putnam	152.249	93.522
81	Randolph	361.056	105.635
82	Ripley	2.095	6.096
83	Rush	287.790	15.892
84	St. Joseph	2397.744	810.940
85	Scott	21.099	183.155
86	Shelby	602.663	166.627
87	Spencer	171.026	43.325
88	Starke	51.630	30.114
89	Steuben	980.144	428.288
90	Sullivan	35.095	20.469
91	Switzerland	.000	.000
92	Tippecanoe	3435.583	1237.897
93	Tipton	115.453	112.524
94	Union	.000	.000
95	Vanderburgh	181.634	1731.101
96	Vermillion	.000	3.069
97	Vigo	397.229	154.613
98	Wabash	643.026	66.213
99	Warren	12.117	11.764
100	Warrick	3807.602	23.048
101	Washington	11.638	31.043
102	Wayne	861.505	384.185

	Locale	P32_30	A32_30
103	Wells	259.734	316.584
104	White	381.907	211.760
105	Whitley	880.994	167.135
106	Iowa	11487.555	21748.845
107	Kansas	12932.292	20314.879
108	Kentucky_E	14080.438	9095.520
109	Kentucky_W	9386.959	6063.680
110	Louisiana	8188.075	10730.332
111	Maine	4188.267	5012.415
112	Maryland	10430.337	11004.177
113	Massachusetts	7950.306	11602.918
114	Michigan_E	41798.825	22330.964
115	Michigan_W	41798.825	22330.964
116	Minnesota	11313.566	25231.825
117	Mississippi	8685.090	15645.689
118	Missouri	26864.308	27330.873
119	Montana	1292.106	1171.544
120	Nebraska	2560.746	16314.221
121	Nevada	3221.475	3156.680
122	New Hampshire	4557.938	1657.603
123	New Jersey	11880.505	16012.110
124	New Mexico	2140.946	2281.723
125	New York	23065.133	26072.612
126	North Carolina	18997.000	39173.203
127	North Dakota	610.838	2459.506
128	Ohio_N	31109.239	13336.645
129	Ohio_M	31109.239	13336.645
130	Ohio_S	31109.239	13336.645
131	Oklahoma	9259.718	9510.337
132	Oregon	16624.665	14241.539
133	Pennsylvania	62503.326	39525.786
134	Rhode Island	3394.443	1512.791
135	South Carolina	13060.039	11908.839
136	South Dakota	980.331	3869.144
137	Tennessee	31244.490	27669.446
138	Texas	60039.973	71306.809
139	Utah	13039.290	10502.762
140	Vermont	786.498	2174.648
141	Virginia	17116.296	25988.041
142	Washington	41044.518	35688.185
143	West Virginia	9294.343	2475.706
144	Wisconsin	33987.116	33187.905
145	Wyoming	179.115	377.553

	Locale	P33_30	A33_30
1	Alabama	12185.293	4595.451
2	Arizona	4755.198	2582.174
3	Arkansas	3122.543	3191.800
4	California	33634.568	30679.023
5	Colorado	2809.538	2197.012
6	Connecticut	3719.152	2763.239
7	Delaware	979.725	1266.384
8	DC	.000	.000
9	Florida	8871.160	6020.070
10	Georgia	6354.687	5160.092
11	Idaho	724.239	652.620
12	Illinois_N	10097.971	11359.452
13	Illinois_S	5048.986	5679.726
14	Adams	59.865	63.484
15	Allen	345.251	620.628
16	Bartholomew	95.186	363.054
17	Benton	5.357	4.751
18	Blackford	56.166	4.258
19	Boone	42.758	63.657
20	Brown	5.085	.000
21	Carroll	36.311	5.762
22	Cass	59.897	16.308
23	Clark	195.509	217.472
24	Clay	12.710	8.517
25	Clinton	20.274	20.404
26	Crawford	.000	.000
27	Daviess	27.279	29.676
28	Dearborn	66.994	31.374
29	Decatur	225.531	41.216
30	DeKalb	358.748	70.308
31	Delaware	144.756	98.419
32	Dubois	19.387	11.569
33	Elkhart	697.046	164.770
34	Fayette	23.755	52.184
35	Floyd	68.339	64.372
36	Fountain	4.987	.000
37	Franklin	52.630	85.301
38	Fulton	64.318	31.616
39	Gibson	15.755	17.885
40	Grant	55.265	43.863
41	Greene	19.218	.000
42	Hamilton	188.908	59.337
43	Hancock	63.162	32.744
44	Harrison	81.975	101.164
45	Hendricks	31.089	42.603
46	Henry	21.693	27.977
47	Howard	35.729	31.020
48	Huntington	102.696	56.711
49	Jackson	51.962	62.267
50	Jasper	57.194	.958
51	Jay	190.429	25.975

	Locale	P33_30	A33_30
52	Jefferson	11.828	72.741
53	Jennings	100.747	108.633
54	Johnson	131.856	100.041
55	Knox	63.156	15.922
56	Kosciusko	181.452	95.808
57	LaGrange	19.398	58.917
58	Lake	1615.958	2433.884
59	La Porte	170.402	176.550
60	Lawrence	115.860	92.469
61	Madison	104.401	36.197
62	Marion	932.035	919.865
63	Marshall	136.128	91.386
64	Martin	26.066	.766
65	Miami	17.650	15.494
66	Monroe	116.454	269.692
67	Montgomery	53.500	16.537
68	Morgan	49.643	33.748
69	Newton	4.208	7.227
70	Noble	144.140	45.442
71	Ohio	.821	.000
72	Orange	4.816	.842
73	Owen	1.914	.990
74	Parke	.692	5.156
75	Perry	10.002	13.574
76	Pike	5.357	.000
77	Porter	138.479	47.317
78	Posey	261.623	444.340
79	Pulaski	18.138	44.850
80	Putnam	15.415	16.539
81	Randolph	39.333	52.991
82	Ripley	28.656	11.930
83	Rush	7.866	40.225
84	St. Joseph	367.816	157.067
85	Scott	14.209	17.135
86	Shelby	161.884	34.462
87	Spencer	16.979	14.610
88	Starke	.724	30.660
89	Steuben	152.313	59.843
90	Sullivan	5.715	.000
91	Switzerland	.000	.000
92	Tippecanoe	79.210	329.177
93	Tipton	9.104	14.652
94	Union	.730	.906
95	Vanderburgh	207.772	99.637
96	Vermillion	14.908	.000
97	Vigo	53.965	39.906
98	Wabash	93.927	48.002
99	Warren	9.391	16.454
100	Warrick	20.661	6.308
101	Washington	49.648	74.563
102	Wayne	57.015	27.148

	Locale	P33_30	A33_30
103	Wells	51.358	30.994
104	White	71.430	26.358
105	Whitley	59.639	13.207
106	Iowa	2335.438	3477.917
107	Kansas	3362.039	5135.113
108	Kentucky_E	2253.429	2189.401
109	Kentucky_W	1502.286	1459.601
110	Louisiana	9997.498	14621.337
111	Maine	594.259	467.610
112	Maryland	2666.236	2655.081
113	Massachusetts	4925.458	4290.224
114	Michigan_E	5301.108	5997.150
115	Michigan_W	5301.108	5997.150
116	Minnesota	6865.992	7035.229
117	Mississippi	2823.504	3682.580
118	Missouri	5051.620	5012.651
119	Montana	775.113	1143.677
120	Nebraska	960.179	1094.771
121	Nevada	1410.396	419.921
122	New Hampshire	1514.196	1307.608
123	New Jersey	6770.047	6794.941
124	New Mexico	1001.820	1050.718
125	New York	7481.254	7728.498
126	North Carolina	7755.572	6619.976
127	North Dakota	258.383	595.329
128	Ohio_N	5473.943	5120.294
129	Ohio_M	5473.943	5120.294
130	Ohio_S	5473.943	5120.294
131	Oklahoma	4519.495	5346.055
132	Oregon	2927.947	2640.496
133	Pennsylvania	14431.585	14138.270
134	Rhode Island	890.538	344.538
135	South Carolina	3894.998	3324.706
136	South Dakota	333.720	468.754
137	Tennessee	6409.584	6452.078
138	Texas	38732.040	48195.221
139	Utah	3006.076	3377.565
140	Vermont	511.864	427.429
141	Virginia	3801.231	3378.185
142	Washington	4905.628	4841.642
143	West Virginia	1105.808	703.577
144	Wisconsin	7237.012	8832.422
145	Wyoming	651.761	982.606

	Locale	P34_30	A34_30
1	Alabama	2429.183	2006.512
2	Arizona	2144.232	2963.091
3	Arkansas	2132.485	1639.316
4	California	14888.014	14618.647
5	Colorado	1342.352	1434.059
6	Connecticut	2000.160	2924.690
7	Delaware	452.036	579.817
8	DC	.000	.000
9	Florida	4675.566	4966.992
10	Georgia	4518.346	4601.608
11	Idaho	350.397	412.347
12	Illinois_N	7076.340	5633.821
13	Illinois_S	3538.170	2816.911
14	Adams	110.612	98.788
15	Allen	637.083	517.598
16	Bartholomew	260.069	279.248
17	Benton	6.259	2.448
18	Blackford	22.625	3.191
19	Boone	36.498	42.157
20	Brown	.000	.611
21	Carroll	3.205	4.318
22	Cass	56.814	79.601
23	Clark	78.110	71.564
24	Clay	16.680	50.265
25	Clinton	24.050	30.932
26	Crawford	.000	.000
27	Daviess	14.276	12.830
28	Dearborn	14.569	7.832
29	Decatur	49.187	56.069
30	DeKalb	216.494	79.913
31	Delaware	72.321	136.990
32	Dubois	81.957	56.022
33	Elkhart	542.546	785.013
34	Fayette	29.027	104.959
35	Floyd	150.531	49.998
36	Fountain	.000	18.732
37	Franklin	17.903	14.346
38	Fulton	27.104	16.677
39	Gibson	39.458	13.461
40	Grant	52.501	86.412
41	Greene	.000	1.426
42	Hamilton	151.667	63.195
43	Hancock	20.139	72.444
44	Harrison	21.232	32.981
45	Hendricks	32.013	32.359
46	Henry	25.500	49.794
47	Howard	48.153	450.401
48	Huntington	49.625	85.245
49	Jackson	66.188	98.259
50	Jasper	4.910	5.162
51	Jay	19.654	16.008

	Locale	P34_30	A34_30
52	Jefferson	53.503	81.905
53	Jennings	73.070	37.237
54	Johnson	140.801	102.455
55	Knox	4.261	3.314
56	Kosciusko	122.597	101.395
57	LaGrange	94.151	66.071
58	Lake	102.769	157.095
59	La Porte	144.643	107.649
60	Lawrence	32.246	55.468
61	Madison	42.947	205.908
62	Marion	547.765	1000.149
63	Marshall	194.141	68.751
64	Martin	.426	.359
65	Miami	30.406	10.403
66	Monroe	128.346	101.526
67	Montgomery	62.841	50.807
68	Morgan	27.181	40.256
69	Newton	33.846	8.021
70	Noble	172.133	113.730
71	Ohio	.000	.000
72	Orange	11.686	.394
73	Owen	1.305	.464
74	Parke	14.315	2.415
75	Perry	7.550	6.358
76	Pike	.000	.000
77	Porter	48.562	40.142
78	Posey	21.175	70.631
79	Pulaski	24.948	21.269
80	Putnam	93.729	27.666
81	Randolph	27.693	37.064
82	Ripley	.743	2.650
83	Rush	25.915	20.147
84	St. Joseph	282.026	209.926
85	Scott	79.341	10.904
86	Shelby	153.798	43.158
87	Spencer	31.957	11.288
88	Starke	27.945	23.107
89	Steuben	73.528	92.358
90	Sullivan	12.437	4.971
91	Switzerland	16.640	.000
92	Tippecanoe	229.078	418.700
93	Tipton	8.150	16.026
94	Union	.504	2.007
95	Vanderburgh	290.060	142.493
96	Vermillion	.000	54.556
97	Vigo	138.190	66.061
98	Wabash	31.888	39.541
99	Warren	9.868	9.292
100	Warrick	4.309	11.538
101	Washington	58.427	35.203
102	Wayne	79.812	44.335

	Locale	P34_30	A34_30
103	Wells	76.817	25.661
104	White	38.616	55.698
105	Whitley	43.601	42.934
106	Iowa	2885.927	2235.545
107	Kansas	2038.477	2560.414
108	Kentucky_E	1556.116	1676.947
109	Kentucky_W	1037.411	1117.964
110	Louisiana	786.119	2034.090
111	Maine	350.865	651.908
112	Maryland	1328.937	1521.021
113	Massachusetts	3372.242	2625.601
114	Michigan_E	5030.229	6252.790
115	Michigan_W	5030.229	6252.790
116	Minnesota	4121.141	2943.426
117	Mississippi	1635.159	1743.711
118	Missouri	3440.964	4402.591
119	Montana	114.028	121.808
120	Nebraska	1047.187	813.415
121	Nevada	691.003	318.834
122	New Hampshire	1180.150	690.152
123	New Jersey	3823.353	4227.415
124	New Mexico	111.146	179.299
125	New York	5852.230	6138.129
126	North Carolina	7577.055	6103.923
127	North Dakota	289.765	268.177
128	Ohio_N	3819.852	3428.914
129	Ohio_M	3819.852	3428.914
130	Ohio_S	3819.852	3428.914
131	Oklahoma	2309.299	1824.944
132	Oregon	1525.754	1515.026
133	Pennsylvania	6795.036	5514.900
134	Rhode Island	592.302	300.405
135	South Carolina	3496.396	3748.891
136	South Dakota	365.680	299.778
137	Tennessee	5501.976	5458.178
138	Texas	12225.510	12747.132
139	Utah	909.258	1305.816
140	Vermont	350.540	250.920
141	Virginia	3335.833	3326.143
142	Washington	2100.987	4436.669
143	West Virginia	350.791	685.622
144	Wisconsin	7091.569	5594.075
145	Wyoming	58.897	86.330

	Locale	P35_30	A35_30
1	Alabama	12384.474	12514.963
2	Arizona	13210.819	15032.339
3	Arkansas	8972.317	7791.525
4	California	93084.008	91219.377
5	Colorado	6515.426	8147.020
6	Connecticut	13200.693	6583.764
7	Delaware	2187.730	3277.077
8	DC	.000	.000
9	Florida	21417.114	38803.102
10	Georgia	14911.318	21302.591
11	Idaho	1978.265	2786.594
12	Illinois_N	30697.608	23003.648
13	Illinois_S	15348.804	11501.824
14	Adams	148.202	271.274
15	Allen	1083.412	1424.550
16	Bartholomew	345.413	250.645
17	Benton	18.344	18.214
18	Blackford	145.486	65.816
19	Boone	138.004	90.333
20	Brown	16.929	19.020
21	Carroll	131.663	24.174
22	Cass	188.695	169.279
23	Clark	509.817	360.279
24	Clay	31.297	62.149
25	Clinton	76.550	75.079
26	Crawford	.000	15.466
27	Daviess	63.209	62.231
28	Dearborn	109.077	114.934
29	Decatur	832.375	97.163
30	DeKalb	1125.380	513.231
31	Delaware	563.394	193.608
32	Dubois	47.291	245.945
33	Elkhart	2083.091	1448.181
34	Fayette	90.924	27.621
35	Floyd	205.926	398.516
36	Fountain	16.603	20.081
37	Franklin	92.486	152.594
38	Fulton	240.627	49.278
39	Gibson	43.306	114.811
40	Grant	37.745	144.631
41	Greene	24.953	39.992
42	Hamilton	575.576	817.998
43	Hancock	204.704	109.774
44	Harrison	135.572	203.238
45	Hendricks	116.134	276.176
46	Henry	82.865	76.172
47	Howard	58.784	181.299
48	Huntington	342.861	130.902
49	Jackson	199.334	130.968
50	Jasper	205.271	50.327
51	Jay	251.015	60.960

	Locale	P35_30	A35_30
52	Jefferson	43.186	75.570
53	Jennings	302.215	267.413
54	Johnson	499.620	442.745
55	Knox	38.756	54.933
56	Kosciusko	450.162	302.482
57	LaGrange	72.674	212.455
58	Lake	3320.990	3209.977
59	La Porte	612.346	273.699
60	Lawrence	217.778	155.381
61	Madison	301.359	223.994
62	Marion	3127.761	1516.542
63	Marshall	420.187	618.702
64	Martin	2.431	11.061
65	Miami	63.946	93.915
66	Monroe	223.354	325.988
67	Montgomery	191.436	184.452
68	Morgan	124.821	131.241
69	Newton	16.580	92.804
70	Noble	438.585	436.385
71	Ohio	3.235	6.891
72	Orange	16.035	52.889
73	Owen	4.085	31.330
74	Parke	2.727	48.525
75	Perry	14.769	20.655
76	Pike	17.835	15.585
77	Porter	463.341	243.344
78	Posey	513.675	561.869
79	Pulaski	51.891	16.134
80	Putnam	2.999	263.912
81	Randolph	39.119	49.528
82	Ripley	78.494	49.838
83	Rush	14.758	27.615
84	St. Joseph	1321.195	879.244
85	Scott	39.237	237.912
86	Shelby	102.128	396.568
87	Spencer	15.896	84.203
88	Starke	.000	54.876
89	Steuben	415.102	174.010
90	Sullivan	2.963	58.413
91	Switzerland	.000	55.467
92	Tippecanoe	242.557	384.795
93	Tipton	32.947	18.299
94	Union	2.877	8.397
95	Vanderburgh	600.239	810.191
96	Vermillion	42.651	17.751
97	Vigo	192.402	415.061
98	Wabash	267.286	76.978
99	Warren	36.999	11.141
100	Warrick	77.733	82.973
101	Washington	192.139	79.857
102	Wayne	150.118	237.797

	Locale	P35_30	A35_30
103	Wells	202.349	188.688
104	White	262.967	91.038
105	Whitley	231.344	136.127
106	Iowa	7104.372	6208.752
107	Kansas	7782.554	9080.982
108	Kentucky_E	5655.956	6145.990
109	Kentucky_W	3770.638	4097.327
110	Louisiana	21563.658	21423.998
111	Maine	1693.538	2314.580
112	Maryland	6559.228	11136.019
113	Massachusetts	15351.247	13353.441
114	Michigan_E	16442.345	13178.773
115	Michigan_W	16442.345	13178.773
116	Minnesota	19856.642	13915.396
117	Mississippi	6803.816	7835.477
118	Missouri	14361.561	13047.317
119	Montana	1515.707	2287.318
120	Nebraska	2895.223	3185.650
121	Nevada	2904.830	5799.108
122	New Hampshire	4874.674	3492.220
123	New Jersey	16954.773	21687.897
124	New Mexico	1972.801	3452.309
125	New York	21372.238	29994.857
126	North Carolina	19048.543	25899.225
127	North Dakota	688.488	1022.200
128	Ohio_N	15448.382	11808.843
129	Ohio_M	15448.382	11808.843
130	Ohio_S	15448.382	11808.843
131	Oklahoma	11743.635	10166.009
132	Oregon	8416.380	8089.622
133	Pennsylvania	37634.792	31298.785
134	Rhode Island	3152.571	2333.726
135	South Carolina	11126.098	11090.385
136	South Dakota	984.322	1192.466
137	Tennessee	17512.691	17534.026
138	Texas	92718.639	90297.437
139	Utah	7233.090	7512.100
140	Vermont	1212.581	1264.552
141	Virginia	9076.950	16922.866
142	Washington	12348.495	15688.663
143	West Virginia	2231.282	2841.153
144	Wisconsin	24460.019	13677.435
145	Wyoming	1286.760	1650.064

	Locale	P36_30	A36_30
1	Alabama	5108.025	5108.025
2	Arizona	11925.032	11925.032
3	Arkansas	3306.203	3306.203
4	California	42034.625	42034.625
5	Colorado	3063.655	3063.655
6	Connecticut	9251.699	9251.699
7	Delaware	1371.870	1371.870
8	DC	.000	.000
9	Florida	12649.158	12649.158
10	Georgia	12885.099	12885.099
11	Idaho	532.315	532.315
12	Illinois_N	7491.702	7491.702
13	Illinois_S	3745.851	3745.851
14	Adams	491.640	491.640
15	Allen	1803.550	1803.550
16	Bartholomew	740.661	740.661
17	Benton	1.618	1.618
18	Blackford	8.702	8.702
19	Boone	89.746	89.746
20	Brown	1.817	1.817
21	Carroll	11.776	11.776
22	Cass	523.304	523.304
23	Clark	12.988	12.988
24	Clay	320.631	320.631
25	Clinton	106.189	106.189
26	Crawford	.000	.000
27	Daviess	16.116	16.116
28	Dearborn	.000	.000
29	Decatur	267.349	267.349
30	DeKalb	268.248	268.248
31	Delaware	637.224	637.224
32	Dubois	350.618	350.618
33	Elkhart	4651.830	4651.830
34	Fayette	585.514	585.514
35	Floyd	113.119	113.119
36	Fountain	133.644	133.644
37	Franklin	82.359	82.359
38	Fulton	10.951	10.951
39	Gibson	36.972	36.972
40	Grant	459.706	459.706
41	Greene	10.367	10.367
42	Hamilton	292.935	292.935
43	Hancock	415.278	415.278
44	Harrison	195.350	195.350
45	Hendricks	84.831	84.831
46	Henry	266.809	266.809
47	Howard	3169.613	3169.613
48	Huntington	451.498	451.498
49	Jackson	455.493	455.493
50	Jasper	34.270	34.270
51	Jay	61.196	61.196

	Locale	P36_30	A36_30
52	Jefferson	330.515	330.515
53	Jennings	162.327	162.327
54	Johnson	378.440	378.440
55	Knox	1.555	1.555
56	Kosciusko	356.986	356.986
57	LaGrange	276.618	276.618
58	Lake	356.100	356.100
59	La Porte	132.887	132.887
60	Lawrence	293.502	293.502
61	Madison	1274.134	1274.134
62	Marion	2940.654	2940.654
63	Marshall	406.449	406.449
64	Martin	.000	.000
65	Miami	9.359	9.359
66	Monroe	38.833	38.833
67	Montgomery	264.602	264.602
68	Morgan	43.415	43.415
69	Newton	31.141	31.141
70	Noble	609.273	609.273
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	.000	.000
76	Pike	.000	.000
77	Porter	1.926	1.926
78	Posey	.000	.000
79	Pulaski	1.909	1.909
80	Putnam	144.855	144.855
81	Randolph	122.264	122.264
82	Ripley	1.994	1.994
83	Rush	9.503	9.503
84	St. Joseph	792.637	792.637
85	Scott	11.526	11.526
86	Shelby	146.764	146.764
87	Spencer	29.857	29.857
88	Starke	49.122	49.122
89	Steuben	506.719	506.719
90	Sullivan	33.390	33.390
91	Switzerland	.000	.000
92	Tippecanoe	1404.626	1404.626
93	Tipton	64.162	64.162
94	Union	.000	.000
95	Vanderburgh	16.281	16.281
96	Vermillion	.000	.000
97	Vigo	69.346	69.346
98	Wabash	69.106	69.106
99	Warren	11.529	11.529
100	Warrick	37.596	37.596
101	Washington	2.032	2.032
102	Wayne	199.419	199.419

	Locale	P36_30	A36_30
103	Wells	81.040	81.040
104	White	315.259	315.259
105	Whitley	264.161	264.161
106	Iowa	3265.280	3265.280
107	Kansas	9980.936	9980.936
108	Kentucky_E	5352.653	5352.653
109	Kentucky_W	3568.036	3568.036
110	Louisiana	4560.484	4560.484
111	Maine	3346.605	3346.605
112	Maryland	2381.258	2381.258
113	Massachusetts	2500.697	2500.697
114	Michigan_E	24364.134	24364.134
115	Michigan_W	24364.134	24364.134
116	Minnesota	3301.180	3301.180
117	Mississippi	5518.388	5518.388
118	Missouri	14244.953	14244.953
119	Montana	150.082	150.082
120	Nebraska	1475.416	1475.416
121	Nevada	647.944	647.944
122	New Hampshire	675.405	675.405
123	New Jersey	2188.751	2188.751
124	New Mexico	483.837	483.837
125	New York	8013.700	8013.700
126	North Carolina	8867.047	8867.047
127	North Dakota	490.395	490.395
128	Ohio_N	10153.166	10153.166
129	Ohio_M	10153.166	10153.166
130	Ohio_S	10153.166	10153.166
131	Oklahoma	4136.357	4136.357
132	Oregon	4020.035	4020.035
133	Pennsylvania	9629.425	9629.425
134	Rhode Island	332.541	332.541
135	South Carolina	5495.272	5495.272
136	South Dakota	429.655	429.655
137	Tennessee	12706.572	12706.572
138	Texas	21287.770	21287.770
139	Utah	4201.610	4201.610
140	Vermont	506.469	506.469
141	Virginia	9148.639	9148.639
142	Washington	24326.006	24326.006
143	West Virginia	591.771	591.771
144	Wisconsin	8625.785	8625.785
145	Wyoming	68.624	68.624

	Locale	P37_30	A37_30
1	Alabama	365.453	214.694
2	Arizona	207.716	57.614
3	Arkansas	163.456	95.660
4	California	512.236	1339.531
5	Colorado	43.135	49.071
6	Connecticut	91.078	37.093
7	Delaware	14.451	81.774
8	DC	.000	.000
9	Florida	127.101	128.905
10	Georgia	140.177	123.967
11	Idaho	4.129	20.138
12	Illinois_N	404.237	321.575
13	Illinois_S	202.119	160.787
14	Adams	3.137	.939
15	Allen	43.972	5.767
16	Bartholomew	12.607	.000
17	Benton	.811	.000
18	Blackford	.000	.000
19	Boone	.000	.000
20	Brown	.000	.000
21	Carroll	.000	.000
22	Cass	.000	.000
23	Clark	2.332	9.566
24	Clay	.153	.000
25	Clinton	.000	.000
26	Crawford	.000	.000
27	Daviess	.000	.893
28	Dearborn	.000	1.153
29	Decatur	.157	.000
30	DeKalb	44.745	.000
31	Delaware	11.579	.000
32	Dubois	.000	.000
33	Elkhart	21.401	.933
34	Fayette	.782	.000
35	Floyd	.177	.000
36	Fountain	11.160	.000
37	Franklin	.000	5.766
38	Fulton	5.715	.000
39	Gibson	.000	.000
40	Grant	2.053	.000
41	Greene	2.525	.000
42	Hamilton	11.535	1.325
43	Hancock	.240	.000
44	Harrison	.000	6.838
45	Hendricks	5.437	.000
46	Henry	4.774	.000
47	Howard	11.344	.000
48	Huntington	2.983	.925
49	Jackson	7.679	.000
50	Jasper	.000	.000
51	Jay	.000	.714

	Locale	P37_30	A37_30
52	Jefferson	.167	.000
53	Jennings	1.084	5.682
54	Johnson	7.477	.000
55	Knox	4.869	.680
56	Kosciusko	28.633	.857
57	LaGrange	.183	.000
58	Lake	313.437	169.385
59	La Porte	23.467	.775
60	Lawrence	24.510	4.403
61	Madison	3.558	.000
62	Marion	57.846	9.882
63	Marshall	6.711	5.523
64	Martin	2.287	.000
65	Miami	.000	.000
66	Monroe	.000	5.826
67	Montgomery	12.026	.000
68	Morgan	1.243	.000
69	Newton	2.600	.000
70	Noble	12.593	.000
71	Ohio	.000	.000
72	Orange	.000	.000
73	Owen	.000	.000
74	Parke	.000	.000
75	Perry	4.964	.000
76	Pike	.959	.000
77	Porter	131.096	.000
78	Posey	.000	32.071
79	Pulaski	2.790	.000
80	Putnam	.000	.000
81	Randolph	4.152	.713
82	Ripley	.000	.872
83	Rush	4.960	.000
84	St. Joseph	27.936	.838
85	Scott	.160	.841
86	Shelby	8.006	.000
87	Spencer	2.493	.000
88	Starke	.000	.000
89	Steuben	7.991	.836
90	Sullivan	.000	.000
91	Switzerland	.000	.000
92	Tippecanoe	34.981	1.047
93	Tipton	.857	.000
94	Union	.000	.000
95	Vanderburgh	2.937	.000
96	Vermillion	.000	.000
97	Vigo	5.791	.000
98	Wabash	10.184	.711
99	Warren	.000	.000
100	Warrick	67.277	.000
101	Washington	.170	.000
102	Wayne	11.639	.000

	Locale	P37_30	A37_30
103	Wells	3.117	.000
104	White	.903	.000
105	Whitley	10.772	.000
106	Iowa	143.827	13.360
107	Kansas	43.598	229.098
108	Kentucky_E	150.950	65.127
109	Kentucky_W	100.634	43.418
110	Louisiana	60.612	1009.624
111	Maine	11.977	14.643
112	Maryland	141.541	108.652
113	Massachusetts	95.020	87.668
114	Michigan_E	289.079	82.773
115	Michigan_W	289.079	82.773
116	Minnesota	140.047	187.035
117	Mississippi	51.510	158.451
118	Missouri	212.327	122.503
119	Montana	20.253	71.097
120	Nebraska	18.033	.804
121	Nevada	45.358	9.720
122	New Hampshire	68.704	15.511
123	New Jersey	171.045	310.364
124	New Mexico	29.146	67.717
125	New York	261.429	123.843
126	North Carolina	172.782	79.243
127	North Dakota	1.703	12.496
128	Ohio_N	364.903	144.496
129	Ohio_M	364.903	144.496
130	Ohio_S	364.903	144.496
131	Oklahoma	87.704	218.110
132	Oregon	221.383	76.584
133	Pennsylvania	935.252	568.269
134	Rhode Island	54.365	.831
135	South Carolina	130.055	36.381
136	South Dakota	9.440	.802
137	Tennessee	319.401	131.715
138	Texas	672.493	2661.141
139	Utah	153.961	180.762
140	Vermont	4.538	5.304
141	Virginia	133.919	70.515
142	Washington	276.327	225.342
143	West Virginia	154.839	28.402
144	Wisconsin	444.948	36.238
145	Wyoming	1.910	66.939

	Locale	P38_30	A38_30
1	Alabama	88.197	106.228
2	Arizona	185.876	155.598
3	Arkansas	45.831	53.028
4	California	1077.907	986.075
5	Colorado	133.502	115.692
6	Connecticut	76.364	72.535
7	Delaware	14.746	17.995
8	DC	.000	.000
9	Florida	526.688	489.694
10	Georgia	301.213	494.279
11	Idaho	29.424	32.277
12	Illinois_N	245.720	211.941
13	Illinois_S	122.860	105.970
14	Adams	.284	.347
15	Allen	16.158	13.507
16	Bartholomew	1.403	.955
17	Benton	.042	.131
18	Blackford	.094	.087
19	Boone	1.051	.885
20	Brown	.018	.018
21	Carroll	.082	.210
22	Cass	.467	.421
23	Clark	2.366	1.864
24	Clay	.050	.088
25	Clinton	.278	.279
26	Crawford	.023	.011
27	Daviess	.192	.255
28	Dearborn	.415	.326
29	Decatur	.217	.399
30	DeKalb	.655	.464
31	Delaware	1.930	1.442
32	Dubois	2.260	1.551
33	Elkhart	9.060	8.025
34	Fayette	.127	.186
35	Floyd	1.249	1.075
36	Fountain	.043	.114
37	Franklin	.128	.129
38	Fulton	.083	.151
39	Gibson	.203	.196
40	Grant	.662	.679
41	Greene	.144	.176
42	Hamilton	9.329	8.014
43	Hancock	.483	.797
44	Harrison	.463	.337
45	Hendricks	2.983	2.056
46	Henry	.319	.600
47	Howard	1.086	.715
48	Huntington	.460	.526
49	Jackson	.459	.536
50	Jasper	.232	.238
51	Jay	.097	.201

	Locale	P38_30	A38_30
52	Jefferson	.313	.248
53	Jennings	.147	1.849
54	Johnson	1.679	1.201
55	Knox	.551	.589
56	Kosciusko	.969	.971
57	LaGrange	.517	.591
58	Lake	9.071	6.388
59	La Porte	1.427	1.411
60	Lawrence	.261	.223
61	Madison	1.029	.970
62	Marion	40.461	32.070
63	Marshall	1.000	.975
64	Martin	.033	.064
65	Miami	.296	.516
66	Monroe	1.169	1.987
67	Montgomery	.299	.253
68	Morgan	.783	.520
69	Newton	.052	.114
70	Noble	.398	1.180
71	Ohio	.000	.000
72	Orange	.075	.086
73	Owen	.118	.323
74	Parke	.102	.103
75	Perry	.089	.279
76	Pike	.149	.113
77	Porter	2.540	2.066
78	Posey	.433	.669
79	Pulaski	.189	.339
80	Putnam	.094	.097
81	Randolph	.173	.133
82	Ripley	.727	.530
83	Rush	.177	.184
84	St. Joseph	8.335	7.383
85	Scott	.118	.775
86	Shelby	1.240	.731
87	Spencer	.116	.259
88	Starke	.068	.071
89	Steuben	.382	.441
90	Sullivan	.106	.191
91	Switzerland	.025	.025
92	Tippecanoe	1.610	1.838
93	Tipton	.120	.182
94	Union	.108	.109
95	Vanderburgh	6.883	6.552
96	Vermillion	.017	.069
97	Vigo	1.673	1.530
98	Wabash	.256	.228
99	Warren	.112	.113
100	Warrick	.273	.380
101	Washington	.162	.089
102	Wayne	1.543	1.081

	Locale	P38_30	A38_30
103	Wells	.213	1.778
104	White	.238	.439
105	Whitley	.366	.278
106	Iowa	55.525	58.798
107	Kansas	68.336	63.405
108	Kentucky_E	42.651	50.631
109	Kentucky_W	28.434	33.759
110	Louisiana	84.197	76.858
111	Maine	18.970	26.624
112	Maryland	122.984	105.721
113	Massachusetts	162.475	156.263
114	Michigan_E	110.456	91.561
115	Michigan_W	110.456	91.561
116	Minnesota	181.762	151.042
117	Mississippi	36.530	53.276
118	Missouri	137.332	133.360
119	Montana	15.409	15.191
120	Nebraska	37.520	37.762
121	Nevada	66.766	56.258
122	New Hampshire	31.919	31.448
123	New Jersey	280.192	291.974
124	New Mexico	24.208	21.267
125	New York	352.387	390.048
126	North Carolina	246.303	329.685
127	North Dakota	13.121	14.329
128	Ohio_N	8.980	38.325
129	Ohio_M	8.980	38.325
130	Ohio_S	8.980	38.325
131	Oklahoma	68.622	64.044
132	Oregon	106.034	97.513
133	Pennsylvania	246.337	234.068
134	Rhode Island	22.485	22.108
135	South Carolina	78.027	125.729
136	South Dakota	14.582	17.289
137	Tennessee	156.214	163.033
138	Texas	745.421	634.398
139	Utah	72.347	64.798
140	Vermont	9.441	11.220
141	Virginia	149.790	143.828
142	Washington	169.113	157.176
143	West Virginia	23.812	18.795
144	Wisconsin	128.874	119.569
145	Wyoming	6.786	5.708

	Locale	P39_30	A39_30
1	Alabama	970.998	746.278
2	Arizona	1323.014	1541.745
3	Arkansas	809.096	491.427
4	California	6150.541	6943.717
5	Colorado	451.922	843.520
6	Connecticut	606.648	565.497
7	Delaware	106.721	151.385
8	DC	.000	.000
9	Florida	2088.686	4248.851
10	Georgia	1595.791	1758.629
11	Idaho	144.069	291.502
12	Illinois_N	1010.206	1369.704
13	Illinois_S	505.103	684.852
14	Adams	38.989	6.377
15	Allen	144.163	65.851
16	Bartholomew	77.041	14.012
17	Benton	2.520	1.231
18	Blackford	.801	1.928
19	Boone	8.914	12.012
20	Brown	.091	2.609
21	Carroll	19.079	3.317
22	Cass	26.719	6.487
23	Clark	61.496	19.217
24	Clay	16.568	4.340
25	Clinton	8.271	5.848
26	Crawford	.000	2.122
27	Daviess	3.884	5.099
28	Dearborn	.000	11.326
29	Decatur	13.903	4.124
30	DeKalb	14.041	8.226
31	Delaware	38.862	20.400
32	Dubois	349.262	7.266
33	Elkhart	440.099	36.200
34	Fayette	31.768	3.789
35	Floyd	29.255	14.455
36	Fountain	6.714	2.755
37	Franklin	4.137	4.028
38	Fulton	.550	3.424
39	Gibson	1.857	5.406
40	Grant	29.270	9.991
41	Greene	.955	5.487
42	Hamilton	34.576	64.358
43	Hancock	25.191	14.386
44	Harrison	52.275	7.832
45	Hendricks	5.196	34.975
46	Henry	20.106	6.966
47	Howard	176.293	14.041
48	Huntington	22.682	7.247
49	Jackson	25.682	6.907
50	Jasper	2.214	5.370
51	Jay	5.534	3.162

	Locale	P39_30	A39_30
52	Jefferson	17.107	5.796
53	Jennings	8.155	5.386
54	Johnson	25.534	30.890
55	Knox	.469	5.931
56	Kosciusko	32.994	13.149
57	LaGrange	30.508	7.630
58	Lake	29.284	78.001
59	La Porte	14.464	17.604
60	Lawrence	15.166	7.224
61	Madison	83.053	22.734
62	Marion	208.081	148.681
63	Marshall	23.590	8.525
64	Martin	.000	1.518
65	Miami	15.163	5.247
66	Monroe	5.853	24.773
67	Montgomery	13.293	6.500
68	Morgan	2.804	15.058
69	Newton	4.246	2.276
70	Noble	33.651	8.386
71	Ohio	.000	.945
72	Orange	75.651	3.323
73	Owen	.000	4.034
74	Parke	.441	2.644
75	Perry	11.666	2.834
76	Pike	.000	2.138
77	Porter	2.564	25.588
78	Posey	.000	4.653
79	Pulaski	.576	2.214
80	Putnam	7.277	6.574
81	Randolph	6.552	4.047
82	Ripley	8.864	4.779
83	Rush	.477	2.548
84	St. Joseph	47.905	48.421
85	Scott	3.474	4.192
86	Shelby	22.317	7.210
87	Spencer	33.641	3.198
88	Starke	2.887	3.711
89	Steuben	25.936	5.814
90	Sullivan	1.677	3.654
91	Switzerland	.641	1.776
92	Tippecanoe	115.660	31.722
93	Tipton	3.223	2.510
94	Union	.000	1.152
95	Vanderburgh	21.064	28.896
96	Vermillion	.000	2.435
97	Vigo	6.271	16.280
98	Wabash	3.880	5.378
99	Warren	.579	1.278
100	Warrick	2.428	11.103
101	Washington	89.410	5.013
102	Wayne	37.278	9.939

	Locale	P39_30	A39_30
103	Wells	4.607	5.001
104	White	23.757	4.092
105	Whitley	15.620	5.966
106	Iowa	534.910	455.114
107	Kansas	727.670	449.248
108	Kentucky_E	440.727	416.640
109	Kentucky_W	293.818	277.760
110	Louisiana	287.873	740.616
111	Maine	252.283	216.487
112	Maryland	362.624	1065.878
113	Massachusetts	462.442	1071.860
114	Michigan_E	2015.416	822.600
115	Michigan_W	2015.416	822.660
116	Minnesota	812.911	951.819
117	Mississippi	1645.917	470.585
118	Missouri	1325.867	981.919
119	Montana	48.154	160.654
120	Nebraska	217.183	279.623
121	Nevada	188.051	589.283
122	New Hampshire	113.553	247.026
123	New Jersey	536.730	1492.508
124	New Mexico	73.651	319.351
125	New York	1341.967	2984.984
126	North Carolina	5575.201	1813.136
127	North Dakota	68.702	95.659
128	Ohio_N	823.580	596.165
129	Ohio_M	823.580	596.165
130	Ohio_S	823.580	596.165
131	Oklahoma	375.634	596.261
132	Oregon	569.739	727.731
133	Pennsylvania	1591.172	1981.694
134	Rhode Island	119.424	175.785
135	South Carolina	593.583	772.097
136	South Dakota	97.292	123.021
137	Tennessee	2052.488	1112.071
138	Texas	2842.340	4916.771
139	Utah	609.701	515.719
140	Vermont	169.205	108.871
141	Virginia	1842.942	1477.591
142	Washington	1695.388	1294.407
143	West Virginia	76.209	269.706
144	Wisconsin	1286.023	941.368
145	Wyoming	13.468	80.808

	Locale	P40_30	A40_30
1	Alabama	4570.922	5098.789
2	Arizona	4649.071	6214.697
3	Arkansas	4168.602	2922.279
4	California	28457.311	26673.752
5	Colorado	3399.898	3133.440
6	Connecticut	1940.526	2043.325
7	Delaware	941.174	616.812
8	DC	.000	.000
9	Florida	14107.711	15866.733
10	Georgia	17068.546	10757.449
11	Idaho	1815.198	1855.513
12	Illinois_N	6199.978	4905.824
13	Illinois_S	3099.988	2452.912
14	Adams	33.435	68.475
15	Allen	292.432	229.571
16	Bartholomew	102.784	50.384
17	Benton	2.847	14.936
18	Blackford	6.642	10.629
19	Boone	28.513	38.991
20	Brown	6.491	10.366
21	Carroll	93.823	10.766
22	Cass	91.309	32.149
23	Clark	69.855	118.160
24	Clay	10.496	18.334
25	Clinton	115.623	21.467
26	Crawford	4.907	12.427
27	Daviess	63.782	34.284
28	Dearborn	26.855	37.784
29	Decatur	26.987	15.275
30	DeKalb	22.407	84.728
31	Delaware	54.699	70.704
32	Dubois	58.417	156.409
33	Elkhart	210.364	643.396
34	Fayette	8.764	12.301
35	Floyd	71.954	95.370
36	Fountain	9.054	9.632
37	Franklin	9.866	16.384
38	Fulton	15.015	29.659
39	Gibson	32.376	17.549
40	Grant	38.789	35.688
41	Greene	30.242	21.815
42	Hamilton	198.841	224.186
43	Hancock	33.990	49.803
44	Harrison	65.480	42.529
45	Hendricks	126.712	122.157
46	Henry	25.290	26.148
47	Howard	39.697	49.778
48	Huntington	38.234	30.466
49	Jackson	19.049	43.520
50	Jasper	23.472	22.653
51	Jay	25.488	14.047

	Locale	P40_30	A40_30
52	Jefferson	15.914	24.457
53	Jennings	73.533	23.337
54	Johnson	74.209	217.993
55	Knox	18.864	23.817
56	Kosciusko	85.160	66.641
57	LaGrange	29.110	184.345
58	Lake	239.268	269.615
59	La Porte	66.980	73.306
60	Lawrence	20.493	30.965
61	Madison	90.057	86.874
62	Marion	585.831	536.749
63	Marshall	51.749	80.015
64	Martin	5.865	5.531
65	Miami	15.655	25.166
66	Monroe	72.711	85.559
67	Montgomery	33.096	24.217
68	Morgan	37.313	66.418
69	Newton	5.710	7.388
70	Noble	83.959	31.900
71	Ohio	2.186	3.069
72	Orange	10.276	41.173
73	Owen	18.974	22.789
74	Parke	13.824	20.456
75	Perry	14.108	12.873
76	Pike	4.945	11.378
77	Porter	76.186	93.115
78	Posey	22.529	15.860
79	Pulaski	8.424	7.923
80	Putnam	15.687	25.815
81	Randolph	12.508	38.586
82	Ripley	11.552	24.908
83	Rush	8.117	11.942
84	St. Joseph	170.570	195.264
85	Scott	53.063	18.060
86	Shelby	24.540	23.403
87	Spencer	9.964	20.333
88	Starke	8.582	32.894
89	Steuben	34.143	22.489
90	Sullivan	8.450	18.421
91	Switzerland	4.108	5.766
92	Tippecanoe	122.840	107.689
93	Tipton	13.317	12.115
94	Union	2.664	4.455
95	Vanderburgh	300.169	112.942
96	Vermillion	5.947	7.905
97	Vigo	50.547	61.206
98	Wabash	16.109	28.451
99	Warren	3.437	8.601
100	Warrick	27.295	46.499
101	Washington	14.652	34.012
102	Wayne	49.864	35.785

	Locale	P40_30	A40_30
103	Wells	40.560	21.549
104	White	12.717	20.593
105	Whitley	14.331	33.734
106	Iowa	3228.660	2061.870
107	Kansas	2662.572	1686.601
108	Kentucky_E	1947.932	1922.783
109	Kentucky_W	1298.622	1281.747
110	Louisiana	2697.823	3100.260
111	Maine	1056.349	1445.427
112	Maryland	3566.731	3878.015
113	Massachusetts	4205.551	4105.752
114	Michigan_E	2852.898	3175.051
115	Michigan_W	2852.898	3175.051
116	Minnesota	4857.544	4399.922
117	Mississippi	2956.615	2971.681
118	Missouri	4568.824	3997.456
119	Montana	501.152	940.128
120	Nebraska	2284.168	1099.625
121	Nevada	1736.294	2060.991
122	New Hampshire	908.867	1238.836
123	New Jersey	5713.186	5368.406
124	New Mexico	951.284	1157.381
125	New York	10289.122	10771.037
126	North Carolina	12081.056	14425.446
127	North Dakota	470.036	374.579
128	Ohio_N	2295.848	2447.707
129	Ohio_M	2295.848	2447.707
130	Ohio_S	2295.848	2447.707
131	Oklahoma	2304.974	2186.693
132	Oregon	3088.331	5705.401
133	Pennsylvania	9075.765	8574.504
134	Rhode Island	708.882	804.788
135	South Carolina	4815.753	5811.674
136	South Dakota	757.940	528.853
137	Tennessee	5560.237	5714.679
138	Texas	19183.567	19412.799
139	Utah	2231.422	1911.126
140	Vermont	462.090	617.474
141	Virginia	6210.786	7574.235
142	Washington	5460.787	6326.158
143	West Virginia	856.039	1381.509
144	Wisconsin	5375.060	5244.731
145	Wyoming	229.575	336.790

	Locale	P41_30	A41_30
1	Alabama	6833.510	9462.089
2	Arizona	9285.044	7849.592
3	Arkansas	5647.915	8798.541
4	California	54553.679	46488.103
5	Colorado	4338.784	4328.204
6	Connecticut	9516.327	6251.157
7	Delaware	696.646	1364.459
8	DC	.000	.000
9	Florida	14639.395	13229.596
10	Georgia	9794.052	12560.373
11	Idaho	1256.381	2455.675
12	Illinois_N	19390.133	17654.202
13	Illinois_S	9695.067	8827.101
14	Adams	100.750	109.761
15	Allen	749.329	918.167
16	Bartholomew	260.307	358.635
17	Benton	13.824	14.175
18	Blackford	109.640	58.149
19	Boone	104.001	52.910
20	Brown	12.758	7.106
21	Carroll	99.223	194.196
22	Cass	142.203	196.829
23	Clark	272.831	182.878
24	Clay	23.586	13.871
25	Clinton	57.689	200.375
26	Crawford	.000	.000
27	Daviess	37.243	105.942
28	Dearborn	68.776	35.285
29	Decatur	627.287	342.448
30	DeKalb	848.099	830.311
31	Delaware	424.580	325.509
32	Dubois	35.639	85.157
33	Elkhart	1558.979	1025.857
34	Fayette	68.522	41.097
35	Floyd	155.188	143.494
36	Fountain	12.512	111.297
37	Franklin	2.570	2.204
38	Fulton	181.339	153.543
39	Gibson	32.636	49.638
40	Grant	28.445	48.343
41	Greene	18.805	59.431
42	Hamilton	418.329	328.807
43	Hancock	154.267	80.025
44	Harrison	22.557	90.872
45	Hendricks	87.520	164.844
46	Henry	62.448	77.912
47	Howard	44.300	136.383
48	Huntington	247.616	183.357
49	Jackson	150.221	146.659
50	Jasper	154.694	95.453
51	Jay	180.854	120.430

	Locale	P41_30	A41_30
52	Jefferson	32.545	19.365
53	Jennings	161.599	90.068
54	Johnson	376.519	255.344
55	Knox	21.287	63.107
56	Kosciusko	329.266	497.342
57	LaGrange	54.768	45.365
58	Lake	530.679	3173.584
59	La Porte	452.445	478.210
60	Lawrence	112.858	281.187
61	Madison	227.108	203.278
62	Marion	2242.069	1944.271
63	Marshall	252.356	223.763
64	Martin	1.832	25.485
65	Miami	48.191	27.893
66	Monroe	100.498	59.016
67	Montgomery	144.268	210.435
68	Morgan	94.067	58.988
69	Newton	12.495	30.393
70	Noble	330.522	341.588
71	Ohio	2.438	1.211
72	Orange	12.084	10.361
73	Owen	3.079	2.383
74	Parke	2.055	13.986
75	Perry	11.130	50.930
76	Pike	13.441	15.321
77	Porter	349.179	1381.021
78	Posey	13.724	11.767
79	Pulaski	39.106	50.135
80	Putnam	2.260	1.938
81	Randolph	21.176	53.233
82	Ripley	48.997	25.187
83	Rush	11.121	51.959
84	St. Joseph	985.906	797.712
85	Scott	19.784	41.666
86	Shelby	76.965	123.617
87	Spencer	11.980	32.739
88	Starke	.000	.000
89	Steuben	303.095	242.916
90	Sullivan	2.233	1.109
91	Switzerland	.000	.000
92	Tippecanoe	170.600	465.029
93	Tipton	24.829	32.694
94	Union	2.168	1.077
95	Vanderburgh	452.347	548.274
96	Vermillion	32.143	16.501
97	Vigo	144.996	143.577
98	Wabash	193.146	191.858
99	Warren	27.883	14.665
100	Warrick	58.581	635.362
101	Washington	144.798	78.619
102	Wayne	113.131	206.305

	Locale	P41_30	A41_30
103	Wells	152.492	149.919
104	White	198.175	109.795
105	Whitley	174.343	184.598
106	Iowa	5198.384	7287.136
107	Kansas	3197.753	4431.847
108	Kentucky_E	3504.155	4104.860
109	Kentucky_W	2336.103	2736.573
110	Louisiana	4496.106	4149.626
111	Maine	1105.787	1168.373
112	Maryland	3678.124	4750.292
113	Massachusetts	10548.194	7835.386
114	Michigan_E	11427.456	9559.341
115	Michigan_W	11427.456	9559.341
116	Minnesota	12786.633	11620.847
117	Mississippi	3282.667	4211.644
118	Missouri	9396.790	9792.239
119	Montana	314.509	525.097
120	Nebraska	2172.509	3901.488
121	Nevada	2075.943	1916.482
122	New Hampshire	3493.015	2569.356
123	New Jersey	9163.901	8626.614
124	New Mexico	698.330	952.231
125	New York	14664.514	13294.270
126	North Carolina	13432.611	14054.019
127	North Dakota	373.369	573.463
128	Ohio_N	9959.773	9464.601
129	Ohio_M	9959.773	9464.601
130	Ohio_S	9959.773	9464.601
131	Oklahoma	6310.797	5129.772
132	Oregon	5451.053	6736.059
133	Pennsylvania	21745.945	25035.845
134	Rhode Island	2366.132	1891.494
135	South Carolina	7961.181	6601.632
136	South Dakota	732.462	1071.319
137	Tennessee	11664.272	12104.989
138	Texas	38891.546	35438.849
139	Utah	3346.419	4418.271
140	Vermont	852.066	785.999
141	Virginia	6019.518	7715.015
142	Washington	6682.421	9396.011
143	West Virginia	1350.844	2431.185
144	Wisconsin	18011.435	17774.286
145	Wyoming	190.386	169.713

	Locale	P43_30	A43_30
1	Alabama	3638.355	4009.877
2	Arizona	7516.521	7084.926
3	Arkansas	2395.868	2399.117
4	California	33852.933	33214.198
5	Colorado	4112.441	4006.975
6	Connecticut	2756.987	2661.657
7	Delaware	738.055	715.462
8	DC	.000	.000
9	Florida	20714.563	19891.036
10	Georgia	8573.904	12918.182
11	Idaho	1421.169	1351.967
12	Illinois_N	6677.763	6396.802
13	Illinois_S	3338.881	3198.401
14	Adams	31.091	28.691
15	Allen	321.048	324.192
16	Bartholomew	68.311	63.907
17	Benton	6.002	5.539
18	Blackford	9.400	8.675
19	Boone	58.561	54.041
20	Brown	12.722	11.740
21	Carroll	16.169	14.921
22	Cass	31.626	29.886
23	Clark	93.690	91.790
24	Clay	21.158	19.525
25	Clinton	28.511	26.311
26	Crawford	10.345	9.546
27	Daviess	24.860	22.941
28	Dearborn	55.218	50.957
29	Decatur	20.105	18.553
30	DeKalb	40.102	37.007
31	Delaware	99.459	92.576
32	Dubois	35.425	33.514
33	Elkhart	176.486	213.011
34	Fayette	18.475	17.049
35	Floyd	70.472	65.033
36	Fountain	13.432	12.395
37	Franklin	19.637	18.121
38	Fulton	16.694	15.405
39	Gibson	26.357	24.323
40	Grant	48.708	48.409
41	Greene	26.750	25.394
42	Hamilton	313.766	311.310
43	Hancock	70.134	64.721
44	Harrison	38.182	35.235
45	Hendricks	170.515	158.882
46	Henry	33.964	35.098
47	Howard	68.456	63.173
48	Huntington	35.333	33.473
49	Jackson	33.674	31.837
50	Jasper	26.182	24.161
51	Jay	15.416	14.226

	Locale	P43_30	A43_30
52	Jefferson	28.257	26.898
53	Jennings	26.259	57.547
54	Johnson	150.597	140.199
55	Knox	28.915	26.684
56	Kosciusko	64.105	64.466
57	LaGrange	37.199	35.230
58	Lake	380.279	355.345
59	La Porte	85.827	79.930
60	Lawrence	35.218	33.188
61	Madison	110.834	103.794
62	Marion	724.869	700.707
63	Marshall	41.564	43.537
64	Martin	7.398	6.827
65	Miami	25.579	24.245
66	Monroe	120.776	116.919
67	Montgomery	31.692	29.246
68	Morgan	73.411	68.764
69	Newton	11.096	10.239
70	Noble	40.883	52.229
71	Ohio	4.609	4.254
72	Orange	16.203	14.952
73	Owen	19.667	23.133
74	Parke	12.891	11.896
75	Perry	13.816	16.653
76	Pike	10.425	9.620
77	Porter	124.751	115.914
78	Posey	22.687	25.750
79	Pulaski	10.792	9.959
80	Putnam	32.048	29.575
81	Randolph	19.730	18.208
82	Ripley	23.297	21.499
83	Rush	12.421	12.112
84	St. Joseph	236.070	231.613
85	Scott	20.437	32.659
86	Shelby	35.149	32.436
87	Spencer	15.591	14.388
88	Starke	18.090	16.694
89	Steuben	28.346	30.862
90	Sullivan	17.814	16.439
91	Switzerland	8.661	7.992
92	Tippecanoe	154.655	148.614
93	Tipton	12.239	11.295
94	Union	5.616	5.183
95	Vanderburgh	140.877	160.944
96	Vermillion	11.873	10.957
97	Vigo	79.372	74.005
98	Wabash	26.221	24.864
99	Warren	6.229	5.748
100	Warrick	54.131	50.835
101	Washington	24.442	22.555
102	Wayne	48.454	44.714

	Locale	P43_30	A43_30
103	Wells	24.381	23.375
104	White	19.949	19.149
105	Whitley	29.086	26.842
106	Iowa	2218.835	2129.234
107	Kansas	2190.233	2112.170
108	Kentucky_E	2031.260	2085.973
109	Kentucky_W	1354.174	1390.649
110	Louisiana	3610.750	3425.212
111	Maine	1055.448	1111.356
112	Maryland	5196.511	4862.117
113	Massachusetts	5225.673	5200.515
114	Michigan_E	4010.738	3805.630
115	Michigan_W	4010.738	3805.630
116	Minnesota	4640.433	4432.111
117	Mississippi	2294.257	2449.862
118	Missouri	4787.181	4630.111
119	Montana	783.242	733.060
120	Nebraska	1363.256	1288.669
121	Nevada	2872.952	2700.462
122	New Hampshire	1204.333	1225.904
123	New Jersey	7276.475	7127.240
124	New Mexico	1556.943	1441.692
125	New York	14552.792	14091.964
126	North Carolina	8839.642	10571.424
127	North Dakota	466.369	445.246
128	Ohio_N	2906.501	2784.302
129	Ohio_M	2906.501	2784.302
130	Ohio_S	2906.501	2784.302
131	Oklahoma	2906.970	2797.304
132	Oregon	3547.929	3381.418
133	Pennsylvania	9661.419	9484.319
134	Rhode Island	857.009	882.514
135	South Carolina	3764.229	4648.478
136	South Dakota	599.771	609.886
137	Tennessee	5421.717	5520.520
138	Texas	23970.900	23121.346
139	Utah	2514.300	2443.112
140	Vermont	530.783	500.183
141	Virginia	7203.749	7030.793
142	Washington	6310.665	6006.471
143	West Virginia	1314.908	1221.857
144	Wisconsin	4589.481	4417.932
145	Wyoming	393.964	368.065

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16. Abstract

Using data primarily from the 1997 Commodity Flow Survey (CFS) this report develops a series of models for estimating the production and attraction of 41 different SCTG commodity groups for 145 geographic units in the United States; 92 of these are the counties of Indiana. This is followed by the calibration of fully-constrained gravity models for the flow of these commodities. Using modal share data from the CFS the generated traffic is divided between the various modes. This project looked primarily at the highway sector and used digital representations of these networks for traffic assignment purposes. A very detailed Indiana digital road network was merged with a USDOT digital highway planning network. New cost metrics were developed for each modal assignment . Productions and attractions were forecasted and the models and assignments were rerun for 2015 and 2025. A chapter on implementation suggests how the results of the project can be used for planning and policy development. Appendices include productions and attractions for the 145 areas, computer program code for the major software developed, national modal share data by commodity, and distance decay curves for the different commodities

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State transport planning, digital road networks, traffic modeling, commodity flow data, microcomputer methods, rail planning	No restrictions. This document is available to the public through the National Technical Information Service, Springfield, VA 22161

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